BERKELEY, CALIFORNIA

THE GIFT OF

CHARLES WILLIAM WENDTE

OF BOSTON, MASSACHUSETTS

L. de Brendt

DISCOURSES

DELIVERED AT

SOUTH PLACE CHAPEL,

By

ALEXANDER J. ELLIS, B.A., F.R.S.,
F.S.A., F.C.P.S., F.C.P.

Published at the Chapel,

SOUTH PLACE, FINSBURY, LONDON, E.C.

BX
9843
E47
D57
1877

J4/8/4
El 59

CONTENTS.

"The Dyer's Hand."

Salvation.

Truth.

Speculation.

Duty.

345

Property of
CBSK
Please return to
Graduate Theological
Union Library

"THE DYER'S HAND:"

A DISCOURSE

PRECEDED BY

THE WAY TO GOD:

A MEDITATION,

DELIVERED AT

SOUTH PLACE CHAPEL,

SUNDAY, 5TH MAY, 1872,

AND REPEATED BY ESPECIAL DESIRE

SUNDAY, 18TH MAY, 1873.

BY

ALEXANDER J. ELLIS,

B.A., F.R.S., F.S.A., C.C.P.S., F.C.P.,

Vice-President (formerly President) of the Philological Society, &c.

CHIEFLY AS ARRANGED FOR THE SECOND DELIVERY WITH THE READINGS THEN USED.

J. H. A. HART THEOLOGICAL UNION LIBRARY 1962

Price 2d.

ORDER OF THE SERVICE.

HYMN 12—*Words by* DYER.

"Greatest of beings, source of life !"

READINGS—

I. "Love," from Paul's letter to the Corinthians, in modern language, as follows, p. 3.

II. "Design," from Paley's Natural Theology, as follows, p. 4.

HYMN 5—*Words by* WREFORD.

"God of the Ocean, Earth and Sky !"

MEDITATION, "The Way to God," as follows, p. 9.

ANTHEM 74—From the fourth Gospel.

"God is a Spirit."

DISCOURSE, "The Dyer's Hand," as follows, p. 13.

HYMN 91—*Words by* MRS. BARBAULD.

"As once upon Athenian ground."

DISMISSAL, as follows, p. 44.

READINGS.

I.—LOVE.

In listening to an extremely familiar passage rom the first letter of Paul the Apostle to his Corinthian congregation, which I shall purposely put into extremely unfamiliar words, in order to divert your minds from the mere sound to the sense conveyed, it is as well to recall the context. Much confusion, as was natural, prevailed in all the early christian congregations as soon as the founder's back was turned, and the necessity of correcting it gave rise to those letters which are the earliest and most authentic records of the christian movement that we possess. Among other troubles in Corinth, every man seems to have thought himself as good a teacher as any other, save of course the founder Paul, who therefore strove in his first letter to convince them of their mistake and induce them to work as *parts* of a commonwealth of which there was only one real head, Jesus himself, in whose ideal image Paul always sank his own personality. For this purpose, he first applied the well-known analogy of the body and its members, and then went on to the following purport (i. Cor. xii., 27, to xiii., 13) :—

"You form collectively Christ's body upon earth, and each of you individually is one of its members. Some of us by God's disposition are apostles, others preachers, teachers, sign-workers, healers, directors, speakers in various tongues. Are all apostles, or all preachers, or all teachers, or all sign-workers, or all healers? Can all speak in various tongues, or can all interpret what is spoken in unknown tongues? It is certainly the duty of each individual to do his best to be fitted for the best offices, but I will shew you a far superior method.

"If I were to speak all human and divine languages, and had not *love*, my words would be worthless tinkling. If I had the highest powers of preaching, if I understood all mysteries, had

gained all knowledge, or had mountain-moving faith, but had not *love*, I should be a mere nothing. I might bestow all my goods to feed the hungry, or deliver my body to the torturer, yet without *love*, I should have done nothing. *Love* is long-suffering and kind. *Love* knows neither envy nor jealousy, makes no display nor boasting, behaves decently, insists not on rights, checks anger, suspects not evil, has no sympathy with injustice but much with truth; hides, believes, hopes, endures everything.

"*Love* is never wanting. Preachings shall fail, languages shall cease, knowledge shall die out; (our knowledge is partial and our preaching power is partial, and their partial character will not cease till perfection appears. When I was a child, I spake, I thought, I reasoned as a child, but when I became a man I put aside my childish ways. In the same way our vision now is an enigmatical reflection, but hereafter we shall see face to face. That is to say, my knowledge is now partial, but hereafter I shall know as I am known). The power that we now possess, then, will pass away, but whatever else fails, three things abide, belief, hope, *love*. And the greatest of these is *love*."

II.—DESIGN.

Brief extracts from the three first chapters of Dr. William Paley's "Natural Theology," (originally published in 1802) for the purpose of shewing the nature of his argument. A large quantity of intermediate matter has been omitted for brevity, but nothing is added.

"In crossing a heath, suppose I pitched my foot against a *stone*, and were asked how the stone came to be there: I might possibly answer, that, for anything I knew to the contrary, it had lain there for ever; nor would it perhaps be very easy to shew the absurdity of this answer. But suppose I had found a *watch* upon the ground, and it should be inquired how the watch hap-

pened to be in that place: I should hardly think of the answer I had before given—that, for anything I knew, the watch might have been always there. Yet why should not this answer serve for the watch as well as for the stone? Why is it not as admissible in the second case as in the first? For this reason, and for no other, namely, that, when we come to inspect the watch, we perceive (what we could not discover in the stone) that its several parts are framed and put together for a purpose; for example, that they are so formed and adjusted as to produce motion, and that motion so regulated as to point out the hour of the day; that if the different parts had been differently shaped from what they are, of a different size to what they are, or placed in any other order than that in which they are placed, either no motion at all would have been carried on in the machine, or none which would have answered the use that is now served by it. This mechanism being observed, (it requires indeed an examination of the instrument, and perhaps some previous knowledge of the subject to perceive and understand it; but being once, as we have said, observed and understood,) the inference, we think, is inevitable, that the watch must have had a maker: that there must have existed, at some time, and at some place or other, an artificer or artificers who formed it for the purpose which we find it actually to answer; who comprehended its construction, and designed its use.

Nor would it, I apprehend, weaken the conclusion, that we had never seen a watch made; that we had never known an artist capable of making one; that we were altogether incapable of executing such a piece of workmanship ourselves, or of understanding in what manner it was performed; all this being no more than what is true of some exquisite remains of ancient art, of some lost arts, and, to the generality of mankind, of the more curious productions of modern manufacture.

Neither, secondly, would it invalidate our conclusion, that the

watch sometimes went wrong, or that it seldom went exactly right. The purpose of the machinery, the design, and the designer, might be evident, and in the case supposed would be evident, in whatever way we accounted for the irregularity of the movement, or whether we could account for it or not. It is not necessary that a machine be perfect, in order to shew with what design it was made : still less necessary, where the only question is, whether it was made with any design at all.

Neither, lastly, would our observer be driven out of his conclusion, or from his confidence in its truth, by being told that he knew nothing at all about the matter. He knows enough for his argument : he knows the utility of the end : he knows the subserviency and adaptation of the means to the end. These points being known, his ignorance of other points, his doubts concerning other points, affect not the certainty of his reasoning. The consciousness of knowing little need not beget a distrust of that which he does know.

Suppose, in the next place, that the person who found the watch should, after some time, discover that, in addition to all the properties which he had hitherto observed in it, it possessed the unexpected property of producing in the course of its movement, another watch like itself (the thing is conceivable) ; that it contained within it a mechanism, a system of parts, a mould for instance, or a complex adjustment of lathes, files, and other tools evidently and separately calculated for this purpose.

The conclusion which the *first* examination of the watch, of its works, construction, and movements, suggested was, that it must have had, for the cause and author of that construction an artificer, who understood its mechanism and designed its use. This conclusion is invincible. A *second* examination presents us with a new discovery. The watch is found, in the course of its movement, to produce another watch, similar to itself ; and not

only so, but we perceive in it a system or organisation, separately calculated for that purpose. What effect would this discovery have, or ought it to have, upon our former inference? What, but to increase, beyond measure, our admiration of the skill which had been employed in the formation of such a machine! Or shall it, instead of this, all at once turn us round to an opposite conclusion—namely, that no art or skill whatever has been concerned in the business, although all other evidences of art and skill remain as they were, and this last and supreme piece of art be now added to the rest? Can this be maintained without absurdity?

Yet this is atheism.

This is atheism; for every indication of contrivance, every manifestation of design which existed in the watch exists in the works of nature; with the difference on the side of nature of being greater and more, and that in a degree which exceeds all computation. I mean that the contrivances of nature surpass the contrivances of art in the complexity, subtlety, and curiosity of the mechanism; and still more, if possible, do they go beyond them in number and variety; yet, in a multitude of cases, are not less evidently mechanical, not less evidently contrivances, not less evidently accommodated to their end, or suited to their office, than are the most perfect productions of human ingenuity.

THE WAY TO GOD.

A MEDITATION.

"LITTLE CHILDREN!" said the dying Elder, "Little children! Love one another." "If a man say, I love God, and hateth his brother, he is a liar; for he that loveth not his brother whom he hath seen, how can he love God whom he hath not seen? And this commandment have we from him, That he who loveth God love his brother also." (1 John iv., 20, 21.)

The way to God is through the heart of man!

Not by metaphysical subtleties, where man turneth his eye inwards to see outwards, can he hope to reach God.

Not by theological subtleties, where man vainly strives to fix in words what his mind has failed to grasp, can he hope to reach God.

Not by creeds and anathemas, where the empty words of theology are crystallised into a charm or a curse, can man hope to reach God.

Not by fasting and penance, where man would fain purchase future bliss by present pain, and mount to heaven by trampling down earth, can he hope to reach God.

Not by fervent prayer, where man vainly beseeches God to modify eternal laws for temporary ends, can he hope to reach God.

Not by deep and persistent scientific research, where the head is awake but the heart sleeps, can man hope to reach God.

The way to God is through the heart of man!

By mixing with his fellow-men; by learning the wants of all; by working within his limited circle towards the general well-being; by identifying himself with his race; by feeling that he is above all, and through all, a man, manly, and is only as a man capable of effecting aught; by gathering into a focus those scattered beams of human sympathy which we know as love; by giving practical direction to vague aspirations for improvement; by living for himself but as a part of others, and for others as for himself; by reaching the heart of his fellow-men; thus only can man hope to reach God.

If man look beyond the present life and indulge in dreams of a future eternity of well-being, let him not think of saving his own soul without his brother's, let him not expect to enter heaven by a password, let him not contemplate for a moment the revellers at the lightsome feast within, and the teeth-gnashers in the darksome pit without. The heart of man rejects the contrast, and through the heart of man alone can man reach God.

Let not man seek to know the counsels of God. Man is of the earth, earthy; it is at once his badge and his star. What future may be in reserve for our race none can forecast. If those who have searched most widely are to be followed most readily, we have been evolved from very humble beginnings, and may have a much nobler hereafter. But the future depends on the present as the present on the past. No nobler hereafter is possible, if the present fail in its part. That part is to develop present man; not to despise him as worthless, and fix all thought on the superhuman. Here is our work, and through it our future. The heart of man, is man's noblest organ on earth. Through the heart of man alone, can he hope to reach God.

"Little children!" said the dying Elder, "Love one another!"

"THE DYER'S HAND."

WALKING through a street in Kensington some time ago, I saw a man without his coat, and with his shirt-sleeves tucked up to the elbows, talking quietly with another man, now putting one hand in his pocket, now stroking his chin with the other, evidently in utter unconsciousness or forgetfulness that his exposed hands and arms were different from other men's. But to me at a distance there was something frightful in seeing such ordinary living motions performed by hands and arms which had that green tinge we learn to associate with putridity. That shiny green arm, those dead-like fingers that moved with such unnatural life, were a shock to all my sense of the fitness of things. As I came near, the mystery cleared itself up in the most prosaic fashion—as all mysteries are apt to do. I passed before a dye-house, and had been watching the dyer.

Instantly there came full on my mind that (hundred and eleventh) sonnet of Shakspere, of which a few

words are so familiar, though the context is little known. Shakspere laments and excuses his "public manners" as due to the "public means" by which Fortune had provided for his life, and exclaims :—

> Thence comes it that my name receives a brand,
> And almost, thence, my nature is subdued
> To what it works in, like the dyer's hand.

That dyer's hand, tinged with the most ghastly and inhuman hue, generated by the dye-vat in which it had worked, and yet moving all unconsciously as if nothing ailed it, was by a single stroke of Shakspere's pen raised into being the most significant symbol of men's thoughts and feelings, "subdued to what they work in," the inherited environment, the geographical environment, the social environment, which colour them so completely that they live in total unconsciousness of their own peculiarity, though they are acutely conscious of the different tinge imparted by a neighbouring dye-vat.

Oh, how few are there among us—are there indeed any among us?—I don't mean among the handful of people here assembled, but among the whole circle of humanity,—who can say, as Shakspere said, that their nature is only "almost" subdued! How many of us can from our own hearts, from our own knowledge that we *are* dyed and must be cleansed, echo the fervent wish of the poet, and exclaim :—

Pity me then and wish I were renewed,
Whilst like a willing patient, I will drink
Potions of eisel* 'gainst my strong infection;
No bitterness that I will bitter think,
Nor double penance, to correct correction!

No! dyed through and through, green-blooded to the heart's core, and not merely on the surface of our skin; we persist in thinking green-blood to be the only blood, and are shocked at the unnatural redness of another's. We may laugh at that lady in the story who was struck with the remarkable fact that wherever she went, whatever society she entered, whatever subject she discussed, no one was in the right but herself; yet the only difference between her and most of us is, that she ventured to say so; we are silent, but only think the more steadfastly with the Mahometan carpenter, who replied to Francis New-

---

* Also spelled *esile* and *eysell*, meaning *vinegar*, a common disinfectant. Old French *aisil*, *aissil*, *aizil*, *arzil*, *esil*. The form *aisil* has even crept into Anglo-Saxon, which, however, has the older form, *eced*. All are supposed to come from the Latin *acētum* (vinegar). Shakspere puts "drinking eisel" among practical impossibilities. See Hamlet, Act 5, scene 1, speech 106,

Shew me what thou'lt do!
Woo't weep? woo't fight? woo't fast? woo't tear thyself?
Woo't drink up eisel? eat a crocodile?
I'll do't.

man's attempts at conversion: "God has given you to know much, but not the true faith."*

The dye which tinges our every thought and feeling is most general and most "fast," hardest to be discharged by argument, or to assume a different hue, when it is rooted in the language which we speak, and has thus become ingrained in thought. We learn then inevitably to think under its influence. The whole inheritance of preceding human thought comes to us tinged with the same dye. The very threads by which we would weave the tissue of our own meditations, instead of being susceptible of every hue, so

* The story thus reduced to an allusion, is worth giving at length: "While we were at Aleppo I one day got into religious discourse with a Mohammedan carpenter, which left on me a lasting impression. Among other matters I was peculiarly desirous of disabusing him of the current notion of his people that our Gospels are spurious narratives of late date. I found great difficulty of expression, but the man listened to me with much attention, and I was encouraged to exert myself. He waited patiently till I had done, and then spoke to the following effect:—'I will tell you, sir, how the case stands. God has given to you English a great many good gifts. You make fine ships and sharp penknives, and good cloth and cottons; and you have rich nobles and brave soldiers; and you write and print many learned books: (dictionaries and grammars:) all this is of God. But there is one thing which God has withheld from you and has revealed to us, and that is the knowledge of the true religion, by which one may be saved.' When he thus ignored my argument (which was probably quite unintelligible to him),

that the pattern may shine bright and pure, beautiful and true, as we conceived it was conceived, are so dulled by their previous dye, that the result, true as it may look to our jaundiced eye, is false to every one whose vision is truer. The few, the very few, who, conscious of the radical unfitness of their material for the effect they would produce, seek to mould it by limiting the signification of current words, or inventing new to embody their new thoughts, preach too often to the winds, or worse,—not understood at all, or misunderstood,—so that the thinker soon finds reason to wonder, not that man knows so little, but that he knows anything, not that a man so often misconceives another's thoughts, but that he ever approaches to a conception of what they really are. I am using no hyperbole, I am stating a sober conclusion which

---

and delivered his simple protest, I was silenced, and at the same time amused. But the more I thought it over the more instruction I saw in the case. His position towards me was exactly that of a humble Christian towards an unbelieving philosopher; nay, that of the early Apostles or Jewish prophets towards the proud, cultivated, worldly-wise, and powerful heathen. This not only showed the vanity of any argument to him, except one purely addressed to his moral and spiritual faculties; but it also indicated to me that ignorance has its spiritual self-sufficiency as well as erudition; and that if there is a Pride of Reason, so there is a Pride of Unreason."—*Phases of Faith; or Passages from the History of My Creed. By Francis William Newman. Sixth edition*, 1860, *p.* 32.

years of thought and observation have forced upon me, and which, having often previously stated I find as I live, only more reason to adopt,—when I say that probably no man does understand any other man. The vision of our mind's eye is too deeply affected, the dye upon our mind's hand is too ingrained, our language is clothed with too patched a harlequin suit, for us clearly to express or clearly to seize what is expressed. Only those who have aimed at precision, and have hopelessly failed, or have laboured conscientiously but vainly to enter into the thoughts of one who himself has aimed at precision, can fully comprehend how utterly our nature is subdued to what it works in, like the dyer's hand!

Our first observations, as children, are directed to objects of sensation. It is only by storing up our hazy memories of individual impressions that we, in course of time, very clumsily and defectively group together the immediate results of sensation into aggregates, which seem to us the same as those indicated by the words we hear from others. Subsequent knowledge, which in its full force is the lot of but a few special observers, teaches us that every one of those individual sensations is altogether vague and wanting in precision; and that we cannot thoroughly depend even upon regaining the same sensations in ourselves, —nay, I may almost say, that we can only thoroughly depend upon never regaining them. All natural

philosophers know,—I am saying nothing new, I am merely repeating the very alphabet of science,—that sensations do not repeat themselves, that when they are registered by the most cunning devices of man, each registration differs from its fellow, and that we can deal only with averages and not with individuals. There are some of the fixed stars, whose position it is so important for science to determine, that they have been observed by hosts of the most competent men through many years. Yet we know that it would be more surprising for any two determinations to agree than for all to differ, and that what we conventionally assign as their real place is only an average drawn by most refined methods of calculation from an examination of discrepant data, and though assumed to be true for the present, is acknowledged to be liable to subsequent correction. By means of these positions thus assigned, an observer learns to determine his own personal liability to error,* and knows that that liability itself fluctuates with the state of his health; nay, with the length of time since he was roused from sleep, or since his last meal; and he then contrives to allow for such errors in subsequent observations. Yet merely seeing a point of light, like a fixed star, disappear behind an opaque bar, such as a telescopic cobweb, is an observation of extreme simplicity com-

* Known as his "personal equation."

pared with those by which we obtain the most ordinary notions of external objects in common life. And if each observer is known to differ from others, and even from himself in a matter of such extreme simplicity, what trust can we have that our individual sensations are comparable with our neighbours, and still more that our groupings of those sensations accurately, or even approximately, correspond to those of our neighbours, in the extremely complex determination of the commonest objects which form our environment?

But these are only starting points. The greater part of our thoughts and reasonings are occupied with matters which cannot be made the subject of direct observation. It is only in its rudest condition, therefore, that our language consists of mere names of groups of sensations, such as man, tree, house, land, water, give, take, black, white, light, heavy, and so forth. To give some sort of vent to our bursting thoughts, to convey them however vaguely and indeterminately, we are forced to resort to those half-felt, imperfect, often wholly inadequate, misleading analogies, which we call metaphors. A term used in our own individual sense, according to our own individual experience for some object or act appreciable by direct sensation, is transferred to another merely meditational object or act, some inward feeling, which we know to have no real connection with the first, but which we vaguely connect with it, as we vaguely see human

features in a bright coal fire. And then we boldly use that term when speaking to others without any security either that their sensations derived from the external objects were originally the same as ours, or that their inward connection of those sensations with the thought and feeling which we desire to excite in them, may, will, or can have any resemblance to our own. And thus the maze of language goes on to confusion worse confounded, the dye in our vats becomes more and more muddy, and the hand that stirs them more and more hopelessly bemessed.

When the Elohist or Jehovist spake of God's eye, God's hand, God's outstretched arm, God's image, he had in his mind, no doubt, a real tangible, living eye, hand, arm, and image. The God of the Jehovist really walked in the garden of Eden in the cool of the day, and Adam and Eve could really hear his voice, and attempt to hide—to hide!—from him among the trees (Gen. iii. 8). When the God of the Elohist created man in his own image (Gen. i. 27), the Elohist himself, as has been truly said, created God in the image of man, and so thoroughly in that image, that the God of his creation was, like a man, weary with his own work of creation, and had to rest on the seventh day from all the work which he had made (Gen. ii. 2). To us, now and here, and to the more intelligent preachers throughout Christendom, such words are mere transparent metaphors, by which we vainly

endeavour—how vainly but few consider—to prefigure the unfigurable. But they are all dangerous. They are so thoroughly human that they unconsciously sway the mind to accept God as a mere exaggerated man. The pygmy that can barely descry the giant's toes seeks to dogmatise on the giant's whole structure. The dyer's hand finds its own colour in what the dyer wantonly dares to term a hand. The finite raises its own mental scale to gauge the Infinite!

The Infinite! How easy to say; how hard to conceive! On this day, in thousands of pulpits throughout our own land, and in other thousands of Christian congregations, men will be standing up and telling of God's infinitude, arguing from his infinite power, his infinite wrath, his infinite mercy in allowing his infinite wrath to be infinitely appeased by the infinite sacrifice of himself in a finite form at the hands of Roman soldiers instigated by Jewish priests and a Jewish rabble, before his own infinite self, and running over the other changes of infinity which fall so glibly from their tongue, but which have absolutely no root in their intellect. Nay, of that they are proud. They can know all about the powers, the acts, the results of infinity. They can tell you what infinity, so far forth as being infinity, can, will, and must do, without having even the shadow of a conception to put behind the word. The mathematician and the natural philosopher have to deal constantly

with the ever-increasing and the ever-diminishing, and many of our preachers (very far from all) have had to bend their minds when young to such considerations. But with most of them it has been mere cram, stuff to be blurted out in an examination, and then forgotten. Yet here, and here only, have we the least hope of arriving at any practical conceptions of a matter which all religious teachers are apt to treat with easy, self-complacent confidence. The course of my own studies during many years, from opening manhood to the present day, has often brought me face to face with this problem of infinity, so well known to all real mathematicians, in the simplest of all relations, number and space. I have been compelled to give it long, continuous, and reiterated consideration; to ponder over it for weeks and months at a time; to read and study what the best heads had written of it; to endeavour by every means in my power to catch some clue to its real nature; to render my thoughts precise by writing and re-writing; to see how, at least, the effects of infinity might be safely inferred, or its laws partly divined; to comprehend, if it be possible, the infinite in the finite, the description of an endlessly increasing path with an endlessly increasing velocity in a strictly limited time; to see in my mind's eye the relations of various orders of the infinitely great and the infinitely small; in short, to bridge the great gulf between the discontinuous and

the continuous. I need scarcely tell you that I have not done what I have found no other man has done, but I have had a deep conviction of the limits of human power forced upon myself. The matters with which I dealt were not those highly complex, ill-defined, worse comprehended conceptions which form the staple of theology. They were the very simplest conceptions which the human mind can form with any approach to precision. And the result? Did I seem to come nearer to the goal? Nay, was I not rather like the voyager who day after day sees the same hard circle of horizon limiting his vision, till he misdoubts the very motion of his ship? Or like the mountaineer who briskly begins his route to top the crest before him, and, that reached, finds only another and steeper there he had not previously divined, and, topping that, another and another, till poor "Excelsior" falls exhausted by the way? And this, where the road has been marked out with so much skill by minds far above my own, minds which are the very guiding stars of all human thought.* What, then, of matters where all is guess, where no road is known, where the trackless ocean spreads without a compass, where the traveller is involved in the deepest gorges without power to see or to divine how to scale their precipitous cliffs? When shall we learn the lesson of the Titans, and

* Such as Newton and Leibnitz.

know the fate of those who would scale heaven by piling the Pēlion of presumption on the Ossa of ignorance?*

But while we all, at least I hope all whom I address, acutely feel the purely metaphorical application of terms implying human form, or any part of the human form, to the inapproachable object of all human thought, yet we are apt, even the wisest and best of all mankind are apt, to be led astray by human language,—the inheritance derived from men who held to a literally humanesque personality of the Deity,—when the terms do not imply bodily form, but the best and least corporeal functions of humanity,—thought, will, love. We may be, I believe we are, speaking the highest and noblest thing which man can say of God, when we declare that God is Love; but let us never forget that such language is purely anthropomorphic in its origin, and must be held purely metaphorical in its application. If we seek to drive it home, to make God Love as we alone know love, we do not raise man to God, but degrade God

* The Titans are here, as usual, confounded with the Giants who were said to have scaled heaven. "Thrice," says Virgil, Georgics, book I., vv. 281-3, "thrice they endeavoured to pile Mount Ossa on to Pēlion, and roll the woody Olympus on to Ossa; thrice father Jove with his lightning threw down the mountains they had reared." See also Ovid's Metamorphōsēs, book I., vv. 152-5.

to man. What is the love we know, the love which alone we can have in mind when we apply the term, as the outcome of all the best we can conceive, to the Inconceivable itself? Turn to that glowing description of love by the noble Paul, that passage to which every heart instinctively reverts which has once beaten at its sound, and see how thoroughly human, how utterly un-Godlike, it is in its every part. Reject the negatives, which constitute the main portion of the description, as the painter cannot suggest light but by the accumulation of shade, and see with what reality we can say that God, like love, suffereth long and is kind, rejoiceth in or with the truth, beareth all, believeth all, hopeth all, endureth all (1 Cor. xiii. 4, 6, 7.) A man, dependent man, may do this. But how can we even magnify long-suffering, kindliness, delight at the discovery of truth, endurance, belief, hope, into any conception of God which is not purely human? Let us know that it is only our own helplessness which leads us to say that God is Love! and that these words are but the faintest possible glimmer of that far-off light which we hope we may forefeel, but certainly can never actually perceive. Let us beware of pushing home an analogy which has already led to the revolting conception of a devil, of a power antagonistic to the Unassailable, to account for what our human conception of love cannot contain. Mark how limited is that conception! Strong between one

man and another, love weakens as the circle widens. In the family and clan it often mixes up with feelings of merely personal dignity. Towards the nation, even when strongest and purest, its character is wholly and completely changed. And when extended to the whole of mankind, it dwindles down to a very faint glow indeed. Often mixed with this love is the strongest antipathy, the haughtiest contempt, the most transparent selfishness. Look at the international relations which have convulsed Europe and America, even within the memory of the youngest adult here present! But extend your heart to the lower animals, to the living but insentient vegetable, to the inorganic kingdom, and, by slow degrees, love dwindles to nonentity. Then think what part the whole of this earth, with all that it contains, plays in that great universe of bodies which the telescope reveals, compared to many of which our whole solar system is as nothing, nay, perhaps, our whole stellar system but insignificant. But all these are God's; all these may, like the earth, swarm with a life, an intelligence, a love, unlike the earth's indeed, but, if any twilight notion we can form of God be even remotely correct, as much bound up with God as our own puny selves. And then, straining our minds to grasp this mighty conception, let us again ask ourselves what resemblance can that Love which we call God, have to that human conception which alone fills our minds

when we utter the word Love on earth? It is not to disparage, but to appreciate, not to lower, but to elevate, not to put aside God as a loveless, emotionless stone of an Epicurean deity, but to widen our minds and hearts to some vague panting hope that the Ineffable may warm us into some power of feeling what we can neither conceive nor utter, that I venture to call your attention to the utter inadequacy of man's noblest formula: God is Love!

But the dyer's hand is still more apparent in the moulding of another conception, which it was my principal object to bring before your notice, and which will occupy the rest of the time for which I can venture to claim your attention. Every lip is ready to speak of God's "design;" of God's will, purpose, intention, final cause, motive; of the reasons which induce him to make things as they are; of the plan of the universe and the changes or amendments ("new dispensations" is the favourite term) which he has introduced into it; of his scheme of redemption (which, by-the-bye, seems to be conceived as occasionally thwartable); of his contrivances to produce certain effects; of his elaborate system of rewards and punishments to keep the world in order (which, however, altogether fails because he has not succeeded in keeping the Devil in order); of his mechanical knowledge in availing himself of the properties of bones and tissues in organisation; and so

on, and so on, from the philosopher to the clown, from Darwin, whom the necessities of language oblige to speak of the purpose, intention, use of certain organs, to the poet's "pampered goose," who finds man created to feed him. Now, before we proceed to consider this preposterous nonsense, which would not be worth a moment's thought if it had not such a profoundly distorting effect on our mental vision when directed to the greatest of all subjects, let us inquire what is the human meaning of the principal word throughout this Babel, which I have placed first in order, because it is the key to all the rest. What is the human meaning of "design"? Clearly, it is only by knowing human design that we can infer creative design, and a little consideration will shew that there cannot be even a remote analogy between the two. To *design* was originally *to mark out, to trace out*, as the boundary of a city was traced out by a plough, but it very early acquired in Rome, where the word is indigenous, that metaphorical meaning in which it is generally employed. A man designs a machine—Paley's watch, for example—what has he done? He has himself, or through his predecessors, discovered the laws of geometry, the properties of circles, the power exerted by a metal spring in uncoiling, the difference of that power according to the thickness and length of the spring, and the kind of metal composing it, especially the tempering of the metal, and

the isochronous vibrations of thin and highly tempered springs, with various other properties of toothed wheels and levers, which I need not stay to describe. Now observe, he has *discovered* all this, he has *invented* nothing as yet. What he wants to do is to make a rod, the hand of his watch, move round in a circle at a rate bearing an exact relation to the rate at which the earth revolves on its axis, which revolution he has also discovered, not invented. Seizing, then, on the fact of the isochronous vibration of a hair-spring when properly weighted and properly jogged, he puts these parts together so that these properties (which he did not make, nor invent, but only discovered), acting according to the laws of geometry and mechanics (which again he did not make, nor invent, but only discovered), may really produce the required result. Observe, too, that his knowledge of the laws of this action is imperfect ; there are certain properties of expansion and contraction with heat, which he has not become sufficiently familiar with, or known how to bring into destructive opposition ; there are certain difficulties in cutting geometrical figures truly in metal which he cannot entirely overcome ; so that his watch is at best a very imperfect affair requiring daily correction by observations—themselves more or less imperfect—on the presumably invariable motion of the earth. This is human design. All man's part is to find the materials, the laws of their action, and the laws by

which they can be connected; nothing else whatever. He puts them together, and we say that that grand abstraction, "nature," does the rest. Now, if we apply this to God, we see that some other god must have made the materials, and their laws, and the laws of their connection, and that he merely puts them together! What a degrading conception! The great God, the expression of utter boundlessness, a mechanical drudge, a piecer of other gods' goods! Shame on man that he ever inculcated such a doctrine! Shame on those natural theologians who would found our very reason for believing in the existence of God on such transparent fallacies, which can be knocked down like nine-pins by the first bowl of a cunning atheist!

But the conception recurs again and again. Even natural philosophers, as distinct from natural theologers, become occasionally involved in its meshes. Professor Tyndall, in the second of his series of lectures on Heat and Light, which he delivered at the Royal Institution in 1872, brought forward a notable instance, widely accepted, and hesitatingly admitted by even the founder of that Institution, Count Rumford, for the purpose of shewing how utterly fallacious and presumptuous it is, like Phaethōn to guide the horses of the Sun. Water, as every one who has learned anything about its properties is aware, is liquid at ordinary temperatures, and

as it is cooled down to about 40 deg. Fahrenheit, regularly and gradually contracts like the column of mercury in the thermometer. But then a change ensues. Increase the cold towards freezing and the mercury continues to contract, but the water expands, till at freezing it becomes solid ice, occupying much more space than the water whence it was generated, as most householders have learned from broken water-pipes. Hence, as the water cools to 40 deg., it sinks to the bottom of any pond, lake or river, because it is heavier, but after 40 deg., and up to and after its becoming ice, it is lighter and floats on the top, presenting a pad against the cold, and hence keeping the water liquid below, and preventing the whole mass from becoming one solid lump, destroying all possibility of life within it. The importance of this property to the inhabitants of temperate and arctic regions is manifest. Without it these climes could not be inhabited by man or any other animal, as now constituted. No other liquid was known to possess the same properties. What so natural, then, as to say that God in his providence *designed* this solitary exception from the universal law of contractility by cold, for the benefit and preservation of man? And men *have* said so one after another. The fact is so striking, the relation to man, in regions where ice can form, so clear, that the boldest denier of God's providence—generally somebody extremely ignorant—would be shaken

when its bearing was made clear. But in the first place, the fact clearly could not affect those parts of the world where ice never forms, and in the second place, at a time when the present arctic and temperate regions bore tropical vegetation, this law also did not affect them, though as yet man was not to be found on the face of the earth; and, lastly, this is *not* a solitary exception. When bismuth is sufficiently heated it becomes fluid, and as heat is withdrawn that fluid also first contracts and then expands, although no relations between this phenomenon and the life of man can be traced. The whole argument was, therefore, one from ignorance to ignorance, and its present value is to shew how dangerous, nay, how illogical, how thoughtless it is, from an isolated circumstance, which could only have local value, to infer a general proposition of a totally different character about a totally unknown relation. The preacher who is reported to have found a special providence in the fact (which he deemed universal) that great rivers flowed by great cities, did not more burlesque the ways of God to man than he who founded an argument for God's special care of our race on that other remarkable and more real property of water.

The proof of design is now generally sought for in organisation, and not in the inanimate world. Paley "pitched his foot" unconcernedly against the "stone" he found on the heath; for anything he knew, as he

says, it might have lain there for ever. When he was writing this, at the beginning of the nineteenth century, geology was practically an unknown science, or he might have found a history in the stone which would have led him to the conception of epochs of creation preparing the way for man, gravel collected here to be subsequently dug up, coal gathered there storing up the sun's heat for man's benefit hereafter, perhaps the very mammoths would have been found made to yield ivory or bone manure for future generations. Again he was no chemist, or he might have dwelled much on the chemical constitution of his stone, and its remarkable adaptation for man's future habitations. He was no natural philosopher, or he might have dwelled on its specific gravity, and the wonderful contrivance by which, though water is lighter and more mobile than rock, the dry land could appear for man's existence. In short, he was only a not very learned theologian, who, recommended by his bishop to turn his thoughts to the argument from design, crammed up his subjects, and, more or less correctly—never with the grasp of real knowledge—wove them into a treatise, with the valuable assistance, as we have lately learned, of a French book on the same subject.* He was a good plain writer, and, his half

* This last piece of information has been added since this discourse was delivered. The information was given in the *Academy* or *Athenæum* at the end of 1875 or beginning of 1876, but unfor-

knowledge enabling him to skim over all difficulties, he has produced a seductive book, which has done an immense amount of harm in deteriorating our conceptions of God, and in leading Englishmen to notions thoroughly anthropomorphic in content, though avoiding anthropomorphism in appearance. But the problem of design in older times, when organisation was less understood, was treated with especial reference to the subordination of the inorganic to the use of man. The Elohist, ignorant that rain was formed in clouds but slightly distant from our earth, placed the "extension," (as the Hebrew word means which we translate "firmament") called "heaven," to divide the seas from the rain; and put the sun above us in this same firmament to rule the day, and the moon to rule the night (when it was visible), and that wondrous multitude of other suns, among which our own is only a third or fourth rate body, he brought in parenthetically, as "the stars also," their chief "use" being, of course, "for signs and for seasons, for days and for years," that is, for man to reckon seed time and harvest by. The continual addition that God saw that it was "good," naturally implies that it was effected for a

---

tunately I neglected to make a note at the time, and have been unable to recover the reference. It was stated, however, that the resemblance between the French work and Paley's was very close, and that even the incident of the "watch" is due to the French original. August, 1876.

certain purpose or design beneficial to man (Gen. chap. i.) All this has gradually gone out. Copernican astronomy dissipated the reference of all celestial bodies to man. Geology and natural philosophy ousted design from inanimate objects. But organisation remained, and remains a stronghold.

Who can regard the human eye, the lens, the retina, the chamber through which the beams pass, the diaphragm of the iris, the varying aperture of the pupil, without, in these photographic days especially, being forcibly reminded of the object glass, the sensitised plate, the camera, the movable diaphragm? And as all these latter are known to be the works of design, based upon laws of light as regards its refraction through glass, and its chemical action, what is more natural for the mind just receiving the idea, than to jump to the conclusion, that, as man adapted the camera, so God adapted the eye to the laws of light? True ; *but* for the laws of light the eye would not see. We might almost feel inclined to say that light was invented for the eye. But the Elohist having placed light at the earliest epoch (before the sun and the stars, indeed, whence comes all the light, even the so-called artificial light that we know), no theologer would hit upon this conception, which is not a bit more extravagant than that the sun was made to rule the day, which, therefore, must have existed before the sun. But here, as in the moral government of

the world (which religion had to supplement by a devil), we run great danger, if we press the argument home, of imagining the Unerring to be as great a bungler as poor, designing, fractionally informed man. If the eye was "designed" for sight, why should so many exquisite "contrivances" exist for defeating that object? Why should this man be born blind, why should an Egyptian sun make that man sightless, why should the focal power of the lens be often—generally, I may say—so ill adapted to the position of the retina, that no distinct image can be formed till man's knowledge of the laws of optics has taught him the effect of lenses of glass, and how to grind them? The man is yet alive who first found what form of lens should be given to remedy a not uncommon, but hitherto unsuspected defect existing in his own eye, and now generally known to oculists. If the Jews could ask, in order to explain a certain man's blindness, "Who did sin, this man or his parents, that he was born blind?" are we right in parodying the answer, and replying, "Neither has the Astronomer-Royal sinned, nor his parents; but he was born with astigmatic vision,* that the works of God should be made

* A point of light is seen in correct vision as a single point, but in astigmatic vision (*a* not, *stigma*, a point), it is seen as a line of very perceptible length. If any one looks at himself in the hollow or projection of a bright silver table-spoon he sees the effect of astigmatism, which prolongs or shortens objects, as his

manifest in him?" (John ix., 2, 3.) Do not such phrases grate on every soul attuned to God-like harmony? And what shall we say of the colour-blind for whom no cure has been devised, but who as railway porters on land, or as the look-out at sea, may imperil or destroy hundreds of lives in a moment by confusing green with red?* The man most capable

---

own face, according to the position in which the spoon is held. The Astronomer-Royal, Sir George Biddell Airy, when a professor at Cambridge, used to relate to his class (of which I was a member) how he detected the nature of the error in his own eyes, and calculated the proper shape of the lenses (cylindrical and not spherical) for his spectacles to correct the defect, and how he found it impossible for years to get any optician who would undertake to grind them. Now the malformation is well known and studied, and several oculists (as Liebreich, Bowman, &c.) are prepared to measure the error, often very complicated, and order the construction of proper lenses. It is also found that many eyes, with correct vision when young, became astigmatic with age. Dr. Liebreich considers this to have been the cause of the extraordinary vertical lengthening in the drawing of objects introduced into Turner's latest pictures.

* See "Researches on Colour-blindness, with a supplement on the danger attending the Present System of Railway and Marine Coloured Signals," by the late Prof. George Wilson, of Edinburgh, 1855. "The great majority of the colour-blind distinguish two of the primary colours, *yellow* and *blue*, but they err with the third *red*, which they confound with *green*, with *brown*, with *grey*, with *drab*, and occasionally with other colours; and not unfrequently *red* is invisible to them, or appears *black*,"

of passing an opinion on any point of physiological optics, the great physiologist, physicist, and mathematician, Helmholtz, who had devoted many years of study to this special subject, and written a classical work upon it, says, of the human eye, as Professor Clifford has told us (*Macmillan's Magazine*, October, 1872, p. 507, col. 2): "If an optician sent me that as an instrument, I should send it back to him with grave reproaches for the carelessness of his work, and demand the return of my money." * Is there, indeed, a single organ in the human body ordinarily so perfect that it needs no help from man? On what do our physicians and surgeons live? Was disease part of God's design for the doctor's benefit, or was it a punishment for the patient's sin? And how can we avoid that last old Judaic notion if we see design in everything? Aye, but to give up design is to throw

---

p. 129. It is now not usual to consider *blue* a primary colour; a colour-blind friend of my own could not distinguish red from dark blue; I have known others who could not distinguish red from green. "There is every reason to believe that the number of males in this country who are subject in some degree to this affection of vision, is not less than one in twenty, and that the number markedly colour-blind, that is, given to mistake red for green, brown for green, purple for blue, and occasionally red for black, is not less than one in fifty," p. 130.

* This sentence was added for the second delivery, 18th May, 1873.

everything into the power of chance. Who is this grim goddess Chance that can assume the reins of the world because one man differs from another in opinion? When the Pope and Cardinals condemned Galileo for affirming the world's motion, they were, as it has been happily said, at that instant whirling round with it. Our views of the world and its constitution cannot alter the macrocosm without, but may materially affect the microcosm within. Let us face this Chance, and ask again, who art thou? And in ultimate resort all the best philosophy of the day replies: Chance is the sum of all those laws which we have still to learn. To say that the world is what it is, bating the laws we know, through the laws we know not, is surely nothing terrible, is the merest truism of modern science. But by all means avoid a name which conjures up a foul Python that it would need another Phœbus to destroy.

What, then, can we mean by God's design, or rather by that which we humanly call design? Again, all the best philosophy has its answer ready: we mean solely the conditions of existence, that without which—or that which changed—things would not be what they are.* Stated baldly thus, it seems a most

* It will be at once objected that there is nothing even approaching to the conception of human design in such a statement. Quite true. If we attempted to introduce anything approaching to human design, we should have to suppose that

barren proposition. Most laws of primary importance have that appearance till their consequences are traced. As long as we conceive that God meant every particular state to be what it is, it remains a sin to touch it. We have even now among us a "peculiar people," as they call themselves, who decline to summon a physician in case of illness. I have not heard that they insisted on eating grains of wild wheat instead of bread artfully prepared with unholy leaven from the bruised corn. Directly we look upon things as being what they are, owing to certain conditions of existence, we inquire are these modifiable? and if so, with what result? We experiment, we modify. As the peculiar people—

---

an "unconditioned" Creator fell into a profound study resulting in his devising not merely materials, *but their laws*, all fitting into some vast and complicated machine, embracing the whole universe, and having some distinct object which, as well as all the incidents accompanying its action, (the "evil" as well as the "good,") was conceived and intended beforehand, and which he preferred to effect in this way instead of by a single *fiat*. Not venturing to claim that intimate acquaintance with God's mind, which most preachers practically assert themselves to possess, I cannot put forward such an hypothesis. It does not appear to be a particularly edifying conception, and on closer inspection I find it totally incomprehensible. But "conditions of existence" imply no hypothesis. They are a mere statement of what we find, without superadding any imaginary cause, and may be, or rather must be, accepted, whatever cause may be assigned to them.

and others by no means peculiar, I am sorry to say—might declare, we dare to correct God's handiwork. Think of the sheer blasphemy of such a notion! Think how deep that dye must be which could thus obliterate every trace of all that is true and beautiful and good! During an expedition to study the effects of a total eclipse of the sun a few years ago, as the astronomers were preparing to make those observations which tend so greatly to establish oneness amidst the diversity of the universe, some ignorant natives lighted a fire to frighten off the dragon that was consuming the sun, and the whole observations would have been nullified by the smoke had not some English officer seen and bravely stamped it out.* And we here, here in England, here in London, here in the largest city of the world, speaking a language more widely spoken than any in the world, need a brave officer like him to stamp out the fumes which would thwart the only means we have of even vaguely forefeeling that Being whom no epithet can describe, but which an ignorant crowd believes to be succumbing to the serpent knowledge.

The dye of humanity is on our hand. Wash it as we may, either in the Abana and Pharpar of stately theology that arrogates to itself universal *à priori*

* So far as I can recollect, this refers to the total eclipse of the sun on the 12th December, 1871, and the incident mentioned is illustrated by a drawing in the *Illustrated London News* of the time. August, 1876.

knowledge, or in the Jordan of lowly science (2 Kings, v. 10, 12), that lays down as its first principle, ignorance of all not yet discovered—wash it as we may, we cannot wash it clean—but we can know that it *is* dyed, and we can lift it up with a clear conscience, that while panting after God as the hart for the water brooks (Ps. xlii. 1), we have never knowingly let a single drop of the dye fall on our shapeless conception of the Inconceivable. Let us take a lesson from the Greek myth of Semelē. As we can only converse with the Deity through human conceptions, let us be content that they are human, and not entreat a presence which no man can see and live.* And, in order that our nature may not be more than "almost" subdued to what it works in, let us wear in our "heart of heart,"† never to be forgotten, cherished as a constant warning, as a safeguard against presumption, as the token of self-knowledge, Shakspeare's badge of the Dyer's Hand!

* Semelē "was beloved by Zeus (Jūpiter), and Hērē (Jūnō), stimulated by jealousy, appeared to her in the form of her aged nurse Beroē, and induced her to pray Zeus to visit her in the same splendour and majesty with which he appeared to Hērē. Zeus, who had promised that he would grant her every request, did as she desired. He appeared to her as the god of thunder, and Semelē was consumed by the fire of lightning." (W. Smith's Dictionary of Greek and Roman Biography and Mythology.)

† (*Hamlet*, act 3, scene 2, speech 14.)

DISMISSAL.

May we each ponder in private, and shew forth in public, that the way to God is through the heart of man!

SALVATION:

A DISCOURSE,

PRECEDED BY

THE WORK OF TO-DAY,

A MEDITATION,

DELIVERED AT

SOUTH PLACE CHAPEL,

SUNDAY, 10TH OCTOBER, 1875.

BY

ALEXANDER J. ELLIS,

B.A., F.R.S., F.S.A., F.C.P.S., F.C.P.

Vice President (formerly President) of the Philological Society, &c., &c.

PRICE TWO PENCE.

ORDER OF THE SERVICE.

HYMN 342 :

"Rise ! for the day is passing."

Words by ADELAIDE PROCTOR. Music by B. TOURS.

READING :

Luke xi., 25-37. Rom. ii., 11–29.
Chief parts of Athanasian Creed.
Arts. 6 & 8 of the Church of England.
William Ellis's "What am I?" pp. 52-57.

HYMN 280 :

"All are architects of Fate."

Words by LONGFELLOW. Music by GLUCK.

MEDITATION : "The work of to-day," as follows, p. 3.

ANTHEM 418 :

"To thine own self be true."

Words by SHAKSPERE. Music by GOUNOD.

DISCOURSE, "Salvation," as follows, p. 7.

HYMN 281 :

"We all must work, with head or hand."

Words by LORD HOUGHTON. Music "FESTUS."

DISMISSAL, as follows, p. 30.

THE WORK OF TO-DAY.

"I must work the works of Him that sent me, while it is day: the night cometh, when no man can work." (Jo. ix., 4). These are the words attributed to Jesus in the fourth gospel. They are worthy of being uttered by any prophet, however great. They are worthy of being taken as a motto by any man, whatever his creed.

"While it is day: the night cometh!" Man's day is his life; his night, his death. When the day is young, we grudge not the hours, we loiter over our work; but when the daylight is fading as the sun hastes to its bed, we count the minutes as they fly. "So long have I to work; so much work lies before me! How shall I overtake it with my exhausted strength? Ah! that the days were longer, or that I had not wasted my morning!" Such is our involuntary cry, when the desire of work still remains in us. Yet the cry is unjust when the knowledge of what to do and how to do it, has not come till the sun has long passed

his meridian, and the experience of hours gone by, suggests the work left for hours still to come. Shall we not honour even the eleventh hour labourer who finds his work at last, and hastes with his still unexhausted strength, helped by the experience of the ten preceding hours, to do it as he may?

"While it is day!" while we have power, while the bright touch of the sun warns us that our time is come to do our spell of work, without which, little as it is individually, though enormous often collectively, the machine of mankind would stand still. We are but a bridge over which the work and thought of the past must travel to reach the future. There is no other road. Break down the bridge, and there were no future for mankind. It were an eclipse in midday, when the night comes ere the sun has set.

"While it is day!" How short the time, how great the work, how precarious the very existence of humanity when all depends on action for the passing moment,—how relentless the law, how inevitable the consequence! What is to be our work to-day? Not merely that of yesterday. No stagnation; no beat must drop in the throbbing heart of the world. The past is merely the motive for the present, as the present will be the motive for the

future. Our work to-day is to receive, both to store and to augment, and to send forward. To augment is the noblest task before us. To augment is our main work to-day. To augment is labour and reward at once.

"The night cometh!"—for us, as part of our race, not for our race, if each day does its work of augmentation. Then will the pessimist doctrine of the Roman lyrist be reversed. The age of the parent will not, as he said, bring forth a more wicked offspring doomed to leave a still more vicious progeny. But, carried from hand to hand in the long chain of passing days, and gathering fresh food from every hand it touches, the torch of progress will go on brightening, till it reaches a glory which will rival heaven itself.

Not on Jesus alone lay the stern, yet loving command, but to all of us comes the watchword: Work God's work while it is day, for the night is at hand when none can work!

SALVATION.

It will probably be within the recollection of many persons here present, that, in a Discourse delivered by Mr. Conway last April upon Public Health, he dwelt somewhat on the statement made by Carlyle, that *health* and *holiness* were fundamentally the same words, and that in German they were still represented by the same word. Still more lately Professor Clifford (in his review of the "Unseen World" so far as I remember) parenthetically remarked that we should never forget that *healthiness* and *holiness* were in fact the same thing. These statements induced me to look into the history of the words expressing these ideas, more especially in the Germanic languages to which our own belongs. The result does not confirm the opinion that there was any connection between the two conceptions in early times, The Hebrew word for *holy* means *pure, free from blemish*, and seems never to have been applied in the sense of healthy. In Latin and Greek the two notions are equally separate. In the earliest form of the

German language, the so-called Mœso-Gothic translation of the New Testament by Bishop Ulphilas in the fourth century, the two words are totally different, *hails* being healthy, and *veihs* holy, and both words still remain in the modern high German in a somewhat different form and meaning. On closer examination, with the details of which I need not trouble you, it seemed to me that the transition in the meaning of the first word *hails* was entirely post-christian, and arose from the conception of our *soul's health*. Thus in the opening general confession of the Church of England Morning Service, after saying that he had done what he ought not to have done, and not done what he ought to have done, the penitent adds, "and there is no *health* in us," whereupon he calls on God to have mercy upon him. Afterwards, by a natural association, what related to his *soul's health* became *holy*, and singularly enough in the old high German, the transition was still so incomplete that the words *healthy* and *holy* were kept apart by a peculiar difference in the form of the termination, *heil-lih* healthy, *heilac* holy, and, as in the modern language the latter termination is lost. the first word is used for *holy*, the sense of *healthy* is entirely given up, and its place is supplied by a different word, corresponding to our word *sound*.

But there was another word, and another conception, which tended greatly to the confusion. Our word *salvation* is merely Latin, and it is connected with a number of words as *salve*, *salvage*, *save*, *safe*, *salute*, *salutary*, the ultimate form of which is a mere matter of conjecture, but the original conception of the Latin and the corresponding Greek word, was to *restore to health*, *to make healthy*, *to keep from the attack of disease*, and hence *to keep out of danger of any kind*. Now you are aware that one of the great characteristics attributed to Christ, which in Christian tradition is thought to be his chief credential as an emissary from God, and has in fact been perpetuated to the present day in the belief of the Roman Catholic Christians, was his power of *healing* or *making healthy*, or *restoring to health*. And no doubt the primitive meaning of our word *Saviour*, both in its Latin and Greek form, as it is in its old high German, and in the older Gothic form (although they are all derived from different roots), is simply that of *healer, restorer to health*. We have a remarkable instance of this in the story of the miraculous cure of the woman with an issue of blood (Matt. ix., 20–22), who "said within herself, if I may but touch his garment, I shall be whole," which in the Greek is, "*I shall be saved*." And on this ensuing Jesus said: "Thy faith hath made thee

whole," which in the Greek again is, "thy faith *hath saved thee*." The Vulgate uses the Latin word *salva* in both cases, as it does also in the cry of the disciples in the boat in a storm, "Lord, *save* us, we perish." The connection between preserving from disease and from any danger is evident, and was commonly felt long before Christianity was heard of, insomuch that the term *Saviour* was used as a title of honour to those who had deserved well of the state. In developed Christianity, however, there was a danger present to the mind of every one, the danger of eternal punishment, from which Jesus was in an especial sense the *saviour* or *preserver*. But this preservation was made conditional on faith, that is, on religion and on holiness. And hence health, healing, holiness, saving from present and eternal danger, became inextricably mixed together in the mind, which necessarily confuses conceptions not distinguished by the words that float before it.

In modern times, however, *salvation* in religion, has ceased to have much relation to anything but what may be termed *eternal salvation*, that is the saving of souls from the wrath to come. It is this salvation which forms the staple of modern Christian teaching, for it involves the whole doctrine of the atonement, and is the matter which preachers, especially revivalists, seek to bring home to the minds of their

hearers. Of course when the theory of atonement is not accepted, the whole conception of such salvation falls to the ground. But the question naturally arises, had the conception of the need of salvation no foundation in the relations of life? Is it all a dream? Is there no salvation for us to "work out" for ourselves (Phil. ii., 12)? And the answer to these questions seems to put *salvation* among the most practical subjects for man's consideration.

One of the most admired parts of the Church of England service is the "Litany or General Supplication," read every Sunday morning in all its churches, and on two other days of the week in some of them. This Litany commences by an address to each person of the Trinity by his separate titles, and then to the whole Trinity collectively, repeated by the priest and congregation in the same words, praying the Deity thus addressed to "have mercy" upon the speakers, as "miserable sinners." This is the keynote of the whole service—a confession that all men (for in clerical theory the Litany is used by all men,) are "miserable sinners" (that is, have come under the danger of God's wrath,) and a prayer for God to have mercy, that is, to save them from the consequences of their acts. This is immediately elaborated in the following remarkable words read by the priest: "Remember not, Lord, our

offences, nor the offences of our forefathers; neither take thou vengeance of our sins: spare us, good Lord, spare thy people, whom thou hast redeemed with thy most precious blood, and be not angry with us for ever," whereupon the people respond: "Spare us, good Lord." To many of my hearers these words may sound as part of the ritual of some outlandish, gone-by mode of worship, and not one actually used in many thousand churches on this very day, and accepted as embracing the greatest truths of religion not only by their ministers and congregations, but by the ministers and congregations of almost every orthodox Christian church in the world wherever English is spoken. Yet the theory of the supplication is one which is diametrically opposed to all we have learned of life outside of theology. It places at the head of the universe a Deity who once at least had "blood," and was hence at one time essentially a living terrestrial animal, and who by that blood "redeemed," that is bought—from whom is not mentioned, but we are told elsewhere that it was from himself under another name—those who are "his" people—implying that there were people which were not those of the head of the universe,—being, in fact, on the same theory, the devil's. Then it supposes that the head of the universe, who had had blood like a man,

can forget like a man, and spare, or change his purpose, like a man on the entreaty of other men. This supposition simply overturns the fundamental hypothesis on which all our knowledge reposes, the so-called uniformity of nature. Again, it supposes that man can offend against God without the co-operation of God, which at once limits the omnipotence of God, and admits the possibility of the creature contending with the creator. Moreover, and in this lies the great gist of the whole, it supposes that God can "take vengeance" of these offences, and can "be angry" with the offenders "for ever," that is, punish them eternally for doing what God alone was, on the usual theory of creation, responsible for their doing; and from this the people seek "salvation."

The whole theory is like one elaborated in many parables, where a lord gives certain charges or talents to his servants, and, coming to see what they have done with them, punishes and rewards according to the mode in which they have neglected or fulfilled their trust. But there is not even a faint analogy between such a case and that relation which modern thought suggests could exist between the head of the universe to whom all is due, and the parts of the universe which are due to him. The feeling comes irresistibly to one's mind that, for bad working in any part of the universe, the

head has not to blame the parts, but himself. In this respect any conception of contrivance or design recoils immediately upon the contriver or designer. Such notions are to myself so extremely repugnant, partaking so much of what sounds like blasphemy in my own ears, that I shrink from them instinctively. And yet they are but a logical conclusion from a fundamental theory of accepted Christianity.

After this prayer, which I have far from fully analysed, the Litany proceeds to state the particular dangers from which salvation is sought, the people interrupting the priest at intervals by concluding his sentence for him in the words: "Good Lord, deliver us." It is to these points that I would particularly direct attention, because they are the dangers which the Church of England, as established by the Act of Uniformity (passed 200 years ago, and still in force), marks out as those from which salvation must be sought from Jesus Christ, who is the especial person of the Trinity under consideration, as is evident by the subsequent passionate adjurations for him to deliver the people "by the mystery of his holy incarnation; by his holy nativity," and so on, down to his "precious death and burial, his glorious resurrection and ascension, and the coming of the Holy Ghost." And the

moment at which such deliverance is especially asked is stated to be "in all time of our tribulation, in all time of our wealth" (meaning well-being or prosperity; when, according to very old superstitions, by no means simply Christian, the deities were supposed to have a particular pleasure in reducing the well-to-do to misery), and, as the prayer proceeds, "in the hour of death and in the day of judgment." The notion did not seem, therefore, to have loomed on the divines who composed this Litany (which was, of course, borrowed from others of a very much older date), that salvation is not required at the critical periods of a man's existence alone, but at every instant, at all times, and under all circumstances; that in fact it is not to be forced on our minds by overpowering conditions, which leave us, perhaps, little opportunity or power of action, often indeed little capability of thought; but is to be a constant condition of living.

What, then, are the dangers from which the Litany so passionately prays for deliverance? Perhaps it is as well first to give them in the very words of the Prayer Book, which are probably not familiar to all here present.

"From all evil and mischief; from sin, from the crafts and assaults of the devil; from thy wrath,

and from everlasting damnation; good Lord, deliver us. From all blindness of heart; from pride, vain-glory, and hypocrisy; from envy, hatred, and malice, and all uncharitableness, good Lord, deliver us. From fornication and all other deadly sin; and from all the deceits of the world, the flesh, and the devil; good Lord, deliver us. From lightning and tempest; from plague, pestilence, and famine; from battle and murder, and from sudden death; good Lord, deliver us. From all sedition, privy conspiracy, and rebellion; from all false doctrine, heresy, and schism; from hardness of heart and contempt of thy word and commandment; good Lord, deliver us."

These matters may be divided thus. First, but placed last, salvation from difference of opinion on matters of faith from the authorities adopted by the State. This we may dismiss at once. It is certainly not one of the things from which the world in general desires salvation. Difference of opinion is one of the main inducements to research and examination, and hence one of the main sources of knowledge, whence alone cometh salvation. The doctrine that any set of opinions or statements are irreversible or incontrovertible, is a doctrine of stagnation, and stagnation in a world of progress is relative retrogression. The very doctrines from which any

departure is here deprecated, are in the minds of many, (not the least religious or the most ignorant of men,) themselves things from which we have to be delivered.

Next, we have, strangely inserted, a prayer to be delivered from political as well as religious differences. At the time when this Litany was last authorised by parliament, in 1661, this country was just rejoicing in the return of the virtuous and pious Charles the Second, after a long and successful rebellion, in which his father had fallen a martyr, and the ministers of religion who did not subscribe to the Book of Common Prayer, were righteously turned out of their cures the following year. Ecclesiastical and political supremacy were therefore hand in glove, and the words "sedition, privy conspiracy and rebellion" were horrors to all right-thinking men—that is, churchmen and the politicians in the ascendant. We know how the words were stretched, and we know how it contributes to the salvation of a country to have an opposition as well as a government, and that the salvation from "sedition, privy conspiracy, and rebellion" must be sought, not in mere prayers and adjurations, nor in suppressions with a high hand, but in the harmonious actions of opposition and government for the common weal of all men. And there is a kind of irony in the

fact that only a few years later a special service was added to the prayer-book, and, indeed, remained in it till quite recently, thanking God for the landing of the Prince of Orange on the 5th November, 1688, although this prince was himself the leader of a rebellion against a brother of the king who had sanctioned this petition in the Litany. But by the time that this thanksgiving was sanctioned, that rebellion, the outcome of much "sedition and privy conspiracy" had become a "glorious revolution," and the prayer in the Litany was henceforth levelled against the former king and his descendants. So relative is political allegiance. We may therefore pass by this class of petitions as well as the former.

Still going backwards, we come to a third class of dangers, which are neither ecclesiastical nor political, but which our legal phraseology still calls especially the act or visitation of God, as if it could only see God's hand in misfortune. This class, although bound together in the prayer-book by standing between two responses of the people, really breaks into several. First we have "lightning and tempest." Here, as you are perfectly well aware, we come upon the great source of belief in a Deity, and in his residence above the earth. Thunder, and lightning, and tempest, are

marks of the Supreme, who is not thought of under calm and bright skies and "seasonable weather." And it is also indisputable that we cannot stave off even the lightning and the tempest. How can we hope for salvation from them? They belong, with many other matters, such as eruptions of volcanoes, earthquakes, and generally the changes of terrestrial heat and cold, with the disposition of land and water. rocks unseen, mountains impassable, and deserts trackless and unwatered, to what may be termed the conditions of our planet, about which we are at present slowly gathering a little knowledge. We cannot prevent the formation of lightning, but we are now, as was not the case when this prayer was written, able in some measure to direct its course, and let it play harmless over the drifting ship, or even the stately building. The tempest itself we are beginning to foresee and prepare for, and the outcry which has so recently called attention to our merchant shipping, shews the direction in which we look for salvation from its effects at sea. The deluges of rain which have this year swept away so many lives and so much of the products of human industry in France, and those which have so much injured our crops in the West of England, and which again have flooded the banks of the Mississippi, and the storm that has lately devastated the coast of

Texas, would perhaps be included by the framers of this prayer under "tempest," but this term could scarcely also include the drought which lately so much afflicted the East. The meteorological laws under which these destructive phenomena occur, are so little known, even by those who have studied them most, that we cannot wonder if others resort to prayer alone against them, or, taken by surprise at their occurrence, succumb hopelessly to their force. But we are slowly learning that prayers, at any rate, do not help us, that the only course open is to understand the general set of the climates of different places, including all the phenomena of physical geography and geology, and to forearm ourselves accordingly. Channels must be ready for the extraordinary floods, irrigation must prepare against droughts, commerce must bring the food of one country to the mouths of another. In knowledge, in work, not in prayer, not in passionate adjuration, not in theories of divine wrath and divine forgiveness, lies our salvation, even in these things where man can do least.

The next set in this class, "plague, pestilence, and famine," were commonly looked upon as the especial weapons of the offended majesty of heaven. But recent investigations have shown that plague and pestilence are rather due to our ignorance of

the conditions of health. They are merely forms of that proneness to disease which besets such a complicated apparatus as the human body, and which, at least in minor cases, even our police magistrates now discountenance the "peculiar people," in treating by the truly biblical formula of prayer and religious ceremonies. Like famine, however, there are plagues and pestilences which seem to come upon us from without entirely, as in the potato disease, the vine insect, the locust swarm, and such like. But it is not the tendency of the present generation to sit down with Æsop's carter and pray, but of their own accord to put their shoulders to the wheel and help the car of humanity out of the slough. In short, it is to careful investigation and experiment, that in case of any such visitation, the modern mind looks for salvation, not so much from present injury (which, however, we seek to repair), but from future inroads. In some of these cases, as in the vine insect, and the cotton-plant insect, such salvation of man can only be accomplished by the destruction of myriads of insects. We may put this in the same category with the killing of domestic animals for human food. The salvation of one animal is purchased by the destruction of another. This involves considerations, too extensive to be pursued at present, but

evidently partly embracing the next division in this class, where the people pray to be delivered "from battle and murder, and from sudden death." It is curious that while the people pray for deliverance from "battle," they are subsequently directed to beseech the Lord to hear them, that it may please him to give their sovereign "victory over all his enemies," thus distinctly recognizing war as an object worthy of divine favour, so far as their own country is concerned. It may be said that they hope to be saved either *from* war or *in* war. No doubt. But who now attributes wars to the immediate action of God in each particular case? Who now imagines that there is a "God of hosts" who will turn the scale of victory, independent of numbers of men, discipline, armament, and tactics? It is to these that we look for victory over our enemies, and (at least the theory prevails in influential places) for preventing war from breaking out. But these latter relations between nations are not yet understood. Auguste Comte considered we had entered upon an industrial epoch in which war was impossible. Unfortunately since he drew that conclusion, after many years of civilized peace, the greatest battles ever known have been fought on European and American soil. And, while our governors throughout Europe delight to appear on

state occasions in military attire, and our brethren in the United States delight as much to possess and display their titles to military rank, it can hardly be thought that the hope or preparation for salvation from war has entered into the heart of the nineteenth century. The only direct step that has been taken towards such an end was the late Conference of Geneva on the Alabama dispute between England and America. Indirect steps have been made in abundance, but deep-seated national jealousies and pride—held with the tenacity of a religion—are ready to set them at nought in an instant, or attempt to turn them to the private advantage of particular nations, as was suspected in a recent conference in which England refused to be represented. The direct step of putting humanity before nationality is Utopian. It requires a much longer preparation than mankind has hitherto had, and depends upon a vast amount of private and social training within ever-extending circles, before we can hope for complete salvation from this terrible evil. But merely to pray for it, is simply to retreat from the work.

In addition to "battle" we find "murder and sudden death;" probably the "sudden death," therefore, meant a "violent death," at the hand of another, as in battle or murder. If so we may leave it out

of consideration, as involved in the other two. Otherwise it is a question on which there is great diversity of opinion and desire among mankind. It not only involves the sudden attack of disease, but the question of suicide, which I cannot touch, because of the very numerous considerations which it raises. An old friend of mine used to object to the word "sudden," and suggest "unprepared," but that would not touch deliberate suicide. There is, of course, no doubt that every effort should be made to secure the individual against the conditions of suicide,—some of which have been widely recognised,—and in case of those who know themselves to be liable to sudden death, there should be always that amount of preparation which will prevent misery to those they leave behind. This, of course, was not the preparation intended by my friend, who thought of preparing for a future life, and dreamed, perhaps, of crowding that preparation into the few hours or years during which death is felt to be imminent. But that involves a salvation which has been already put aside.

The "murder" mentioned is typical of all social violence, and the mode of salvation on which man most generally relies is not prayer, not supplication, but law and police. A little more is wanted, to which the world is just waking up. We want not

mere repression, we require anticipation. Punishment is one of the means, in favour with many, to act as a deterrent. But education and training, especially in social relations, are still more needed to act as a divertent, as a means of directing thoughts and actions into totally different channels.

The remainder of the prayer deals with dangers, which, (if we except God's "wrath" and "everlasting damnation," as ecclesiastical figments not now under consideration,) reduce to those arising from the action of our personal or selfish propensities. Of these the devil is a mere impersonation, and his "assaults" and "deceits" here mentioned, must be interpreted accordingly. Now, it is on these personal feelings that the priests have laid their grip. Supposing, as I for one sincerely believe, that the great mass of modern priests are most anxious and desirous to extirpate these selfish feelings, or rather to subordinate them to the unselfish feelings, yet the road they take, by appealing to the fear of God, to the terrors of judgment, or even to the love of God, to the joys of Paradise, seem to me not adapted to the end in view. Such means are too strongly soured with the leaven of church theories, and too slightly imbued with a knowledge of human nature, to act effectively. As a matter of fact, they have not acted effectively. People do not, as a general rule, accept those church

theories as a living motive of work-day action. They leave them within the walls of the church. These theories produce a minimum effect on the practical action of the laymen that profess to hold them, in comparison with the overwhelming nature of their consequences, could they ever be accepted as a moving force. The results, indeed, in that case would logically be the destruction of society, so that we have no reason to regret the illogical manner in which they are at once accepted and neglected. Most undoubtedly a man is a man before he belongs to any religious sect. He is, indeed, brought up in one, and words are poured over him which, in the majority of cases, sink into his heart as much as water on a duck's back, because he is totally unable to realise their meaning. His actions are due to his original capacities, and the environment in which he moves, wherein these religious words and theories stand either for next to nothing, or for some overwhelming and frequently incapacitating influence. But the hope of salvation from all these private and public ills, is grounded on a knowledge of what determines the original capacity of the individual, and how that is modified by his environment.

Among the conditions which determine original capacity, the most important with which we are

becoming acquainted, are those under which each individual human being comes into existence, involving all the relations of heredity and nationality. The effects of heredity, the circumstances of marriage and birth, the conditions of having offspring, healthy in muscle and brain, are questions of the most overpowering interest for all men, and especially all women. Not until the mere attraction of the sexes is subordinated to the higher question of the bearing of that attraction upon the whole future of our race, can we properly begin to work out the salvation of mankind. The farmer breeds his cattle by the best lights he can, to secure definite qualities of bone and muscle, suited to produce definite effects. The human side of the question has yet been scarcely entertained, or, if entertained, has been studiously wrapped up in medical and philosophical treatises, inaccessible to the mass of men and women. But no problem can exceed in interest the best mode of breeding man by observing the conditions of healthy offspring, suited, not merely to bear the burden, but direct and supply the action of man in his efforts to work out his own salvation from the dangers which surround him on every side.

It was to this supremely important condition that I alluded in several lines of a marriage hymn

which I contributed to your collection (No. 253). Thus I began by saying,—

> "Another home is formed on earth,
> Another centre for the race!"

and then spoke of

> "The maid, by mother's fond control,
> Reared for a mother's holy part,"

believing that on the mother rested chiefly the high and noble duty of preparing her daughter for future motherhood; and finally I added,

> "Both, conscious that their act to-day,
> Knits them more closely to their kind,"

because it makes them responsible for the introduction of new members into the great social body. That such a view should become practical at an early period, there is perhaps little hope, while so many other personal considerations stand between a man and mankind, especially in relation to marriage. Many parents, however, even now look upon close consanguinity, hereditary consumption, or hereditary insanity, as bars to marriage, because of their probable effect on offspring. But difference of wealth and rank, or absence of wealth, are thought much more of, and the whole question is viewed, even in the former case, as affecting individuals, or at most families, in place of mankind itself.

In view of this neglect of the first condition, determining the original capacity of individuals, it is somewhat satisfactory to think that the civilised world has of late awakened up more and more to the second condition, moulding the capacity actually found to exist, which, if successful, necessarily reacts on the first condition. This moulding involves what is commonly called education, and much more. Education is an application of the results of adult knowledge to growing minds. It presupposes that the mode in which faculties, whether intellectual or moral, develop, and the cultivation best suited for them, are known. But the moulding does not cease with childhood. The trained youth puts himself under training as a man. He is always using his faculties under different conditions, which must act as education of some sort, and it is the business of those men who write for men and not children, those men of science, those philosophers, those weekly teachers, who all act as the trainers of men, to lead each man to train himself, in the way most needful or best indicated by existing knowledge, to work out his own salvation from the dangers and pitfalls which form the very condition of his existence, physical and moral, individual and social.

This is the salvation we all need; this is the salvation we all desire. To despise this world, which

alone we know, in which we must move and live and have our being, and to seek salvation only in another, which we do not know, which we cannot know, about which we can only dream, or dreamily interpret the dreams of other dreamers, is to forfeit our character and position as human beings. It is in this world, and by our own exertions, through our own knowledge of the relations under which we live, through a conscious and habitual submission of ourselves to those relations, that we can find the only known means of salvation. And if there is a life to come, which we do not know, but cannot deny, and which many believe they forefeel, then the whole of our acquired knowledge points to the fact, that our salvation there, will depend on our salvation here; that if there is a heaven to reach beyond the earth, it must and will be reached by the same means as we succeed in making a heaven upon the earth; that if God is to be found it must be through man alone.

DISMISSAL.

The work of to-day is the salvation of man to come by man present through man past. Let us work while it is day.

Waterlow & Sons, Printers, London.

South Place Chapel.

WORKS TO BE OBTAINED IN THE LIBRARY.

BY MONCURE D. CONWAY, M.A.

	PRICES. s.	d.
The Sacred Anthology: A Book of Ethnical Scriptures	10	0
The Earthward Pilgrimage	5	0
Republican Superstitions	2	6
David Frederick Strauss	0	3
John Stuart Mill	0	2
Sterling and Maurice	0	2
Mazzini	0	1
Revivalism	0	1
Thomas Paine	0	3
Intellectual Suicide	0	2

BY FRANCIS W. NEWMAN.

The Service at South Place Chapel, Sunday, May 20th, 1860	0	3

BY HENRY N. BARNETT.

Religious Enthusiasm	0	3
Hymns and Anthems	3	0

TRUTH:

A DISCOURSE,

PRECEDED BY

LITTLE BY LITTLE:

A MEDITATION,

DELIVERED AT

SOUTH PLACE CHAPEL,

SUNDAY, 9TH JANUARY, 1876.

BY

ALEXANDER J. ELLIS,

B.A., F.R.S., F.S.A., F.C.P.S., F.C.P.,

Vice-President (formerly President) of the Philological Society, &c.

TO WHICH ARE ADDED

THE READINGS, AND AUTHOR'S HYMNS USED ON THAT OCCASION.

The First of a connected Series of Three Discourses delivered in the same Place and Month.

Price 2d.

ORDER OF THE SERVICE.

HYMN 300—

"Do not crouch to-day, and worship
The old Past, whose life is fled."

Words by ADELAIDE PROCTER. *Music by* HAYDN.

READINGS—

I. Declaration of the Minimite Fathers concerning the Motion of the Earth, as follows, p. 3.

II. Personal Experiences of George Combe, as follows, p. 4.

III. Prof. Clifford on the Publication of Truth, as follows, p. 6.

HYMN 160, as follows, p. 8.

MEDITATION, "Little by Little," as follows, p. 9.

ANTHEM 424, as follows, p. 13.

DISCOURSE, "Truth," as follows, p. 15.

HYMN 60—

"Tell me not in mournful numbers."

Words by LONGFELLOW. *Music by* ROUSSEAU.

DISMISSAL, as follows, p. 39.

READINGS.

I.—DECLARATION OF THE MINIMITE FATHERS.

ONE of the best editions of Sir Isaac Newton's "Principia," or "Mathematical Principles of Natural Philosophy," which first explained the theory of gravitation, is that edited by two fathers of the French Society of *Minimī* (often incorrectly called Jesuits), Thomas le Seur and François Jacquier. The third volume of this edition was published at Cologne in 1760, scarcely more than 100 years ago, though the preface is dated 1742. This volume contains Newton's Third Book, written in what he expressly terms "a popular style, to be generally read." But in this book he gives his own account of the solar system, which, of course, involved the motion of the earth. This put his Minimite editors into a strait; and they, therefore, prefixed the following declaration, which, as it is very short, and accuracy is of importance, I will first read in the original Latin, and then in an English translation; and I again call your attention to the date of publication—1760.

"Patrum Le Seur et Jacquier dēclārātiō. Newtōnus in hōc tertiō librō tellūris mōtæ hypothesim assūmit. Autōris [*misprinted* auroris] propositiōnēs aliter explicarī nōn poterant, nisi eādem factā hypothesī. Hinc aliēnam coactī sumus gerere persōnam. Cæterum lātīs ā summīs Pontificibus contrā tellūris

mōtum dēcrētīs nōs obsequī profitēmur." That is to say: "Declaration of Fathers Le Seur and Jacquier. In this third book Newton assumes the hypothesis of a moved earth. The author's propositions could not be explained without making the same hypothesis. Hence we have been compelled to play the part of another person. For the rest, we profess to obey the decrees issued by the Popes against the motion of the earth."

II.—PERSONAL EXPERIENCES OF GEORGE COMBE, (1788—1858.)

From the Introduction to the fourth edition of his Essay, "On the Relation between Science and Religion," 1857.

When a child of six or seven years of age, some benevolent friend bestowed on me a lump of sugar-candy. The nursery-maid desired me to give a share of it to my younger brothers and sisters, and I presented it to her to be disposed of as she recommended. She gave each of them a portion, and when she returned the remainder to me, she said, "That's a good boy—God will reward you for this." These words were uttered by her as a mere form of pious speech, proper to be addressed to a child; but they conveyed to my mind an idea—they suggested intelligibly and practically, for the first time, the conception of a Divine reward for a kind action; and I instantly put the question to her—"*How* will God reward me"? "He will send you everything that is good." "What do you mean by 'good'? Will He send me more sugar-candy?" "Yes, certainly He will, if you are a good boy." "Will He make this piece of sugar-candy grow bigger"? "Yes; God always rewards those who are kind-hearted."

I could not rest satisfied with words, but at once proceeded to the verification of the assurance by experiment and observation. I forthwith minutely examined all the edges of the

remaining portion of sugar-candy, took an account of its dimensions, and then wrapping it carefully in paper, put it into a drawer, and waited with anxiety for its increase. I left it in the drawer all night, and next morning examined it with eager curiosity. I could discover no alteration in its size, either of increase or decrease. I was greatly disappointed : my faith in the reward of virtue by the Ruler of the World received its first shock, and I feared that God did *not* govern the world in the manner which the nursery-maid had represented.

Several years afterwards I read in the grammatical exercises of an early class-book then used in the High School of Edinburgh, these words : *Deus gubernat mundum*—God governs the world ; *Mundus gubernātur ā Deō*—the world is governed by God. These sentences were introduced into the book as exercises in Latin grammar; and our teacher, the late Mr. Luke Fraser, dealt with them merely as such, without entering into any consideration of the ideas embodied in them.

This must have occurred about the year 1798, when I was about ten years of age; and the words *Deus gubernat mundum*, *Mundus gubernātur ā Deō*, made an indelible impression, and continued for years and years to haunt my imagination. As a child, I assumed the fact itself to be an indubitable truth, but felt restless curiosity to discover *how* God exercises this jurisdiction. * * * In the autumn evenings, I used to climb high up on the rocks of Edinburgh Castle, which overhung my father's house, and gaze with intense interest on "the Evening Star," or planet, that shone with resplendent brilliancy in the wake of the departed sun. I longed to see its internal economy, and thought: "Oh! could I but discover that summer and winter, heat and cold, life and death, prevail in you as they do here, how happy should I be! I should then believe that this world is not cursed, but that you, the planet, and we—the earth —are both such as God intended us to be." * * * In

point of fact, I reached to man's estate with a firm faith that God governs the world, but utterly baffled in all my attempts to discover *how* this government is effected. Intercourse with society revealed to me, that my earnest and literal application of the Calvinistic doctrines was idiosyncratic, and that ordinary believers were in the habit of modifying the sense in which they accepted them, pretty much to suit their own tastes. When I suggested that this was practising conventional hypocrisy, I was told that no other course was left open to a young man who depended on public opinion for success in his profession; for were he to disclose his dissent from the religious standards of the country, he would be branded with the stamp of infidelity, suspected of immorality, and obstructed in every step of his career.

III.—PROFESSOR CLIFFORD ON THE PUBLICATION OF TRUTH.

From the conclusion of his Essay, "Right and Wrong: the scientific ground of their distinction," in the *Fortnightly Review* for December, 1875, p. 799.

VERACITY to the community depends upon faith in man. Surely I ought to be talking platitudes when I say that it is not English to tell a man a lie, or to suggest a lie by your silence or your actions, because you are afraid that he is not prepared for the truth, because you don't quite know what he will do when he knows it, because perhaps after all this lie is a better thing for him than the truth would be; this same man being all the time an honest fellow-citizen whom you have every reason to trust. Surely I have heard that this craven crookedness is the object of our national detestation. And yet it is whispered that it would be dangerous to divulge certain truths to the masses. "I know the whole thing is untrue; but then it is so useful for the people; you don't know what harm you might do by shaking their faith

in it." Crooked ways are none the less crooked because they are meant to deceive great masses of people instead of individuals. If a thing is true, let all believe it—rich and poor, men, women, and children. If a thing is untrue, let us all disbelieve it—rich and poor, men, women and children. Truth is a thing to be shouted from the house tops, not to be whispered over rose-water after dinner, when the ladies have gone away.

HYMN 160.

Words by A. J. ELLIS. *Music, old German, "Freu dich sehr."*

"TRUTH is great and must prevail!"
Trite the adage; how and when?
Trial tells another tale,
Truth has failed, will fail again,
If not backed by truthful men.

Truth is man's maturest thought,
That the earnest grasp and try;
Who for truth has never fought,
Who lets falsehood known go by,
Propagates himself the lie.

Truth through deserts leads the way,
Like a guiding fire from God,
Those who know its beam, and stray
Far from where they're signed to plod,
Keep the paths of truth untrod.

To the plough then lay your hand!
Truth is nought when not embraced!
Look not back, nor listless stand
Where your line of work is traced,
Falsehood vanishes when faced!

Wisely said the Man of Love,
"Who not gath'reth, scattereth!"
Truth's our mission from above,
Work alone can shew our faith,
Help is life, indifference death!

LITTLE BY LITTLE.

A MEDITATION.

LITTLE BY LITTLE has every great work of man been accomplished. Little by little rose the mighty pyramid, stone upon stone. Little by little wound the great wall of China, over hill and dale, through wilds unknown. Little by little, brick upon brick, rose the Roman aqueducts, and the mighty nest of houses among which we live. Little by little, spadeful by spadeful, barrow-load by barrow-load, drill-hole by drill-hole, rose the dams which stem out the ocean from Holland, the embankments which support the rail-roads of the world, the tunnels which carry them through opposing hills, and even the mighty Alps themselves.

But by still finer degrees, still less upon less, were the great geologic changes of the world effected. Ages pass and scarce a foot of ground is covered by the slow subsidence of the finest sand, the trickling

and evaporation of the fluid faintly charged with solutions of lime or quartz, or the deposition of the cast-off shells of animals invisible to the naked eye. But ages fail not, and the work fails not, and continents are covered with this sand, mountains arise with that lime, chalk cliffs made of those shells rear their white faces to the sun. The greatest works are but accumulations of the smallest elements.

Accumulations! Not only little by little but little *upon* little. Each film when spread remains, or, if a little is washed away, if the work of ages is carried off in a night, yet the film goes on forming and replaces the loss, the mountain is delayed, not suppressed, and the incessant addition overcomes the fitful destruction. Ever working, ever securing the past as a foundation for the present, ever repairing temporary loss, the slow yet sure agencies of the world about us have achieved the mighty transformation of a ball of fiery gas, through a state of molten lava, to the habitable globe we know.

Little by little, yea, unthinkably little are the processes by which the mighty trees gathered carbon from the air around them, and thus stored the sunbeams for our present use as coal, to civilise the world by the controlled evaporation of water. Delicate beyond thought are the processes by which this carbon, gathering other matters by the way, passes into animal life, and in man learns to think and act,

to *record*, and hence to accumulate through other geologic ages the hourly produce of intellect, and rear the edifice of knowledge, of which we as yet scarcely know the foundations.

Little by little must that edifice rise, the work not of one mind, nor of one generation of minds, but the accumulated and accumulating work of countless generations, past and future. To dare with sacrilegious hands to raise the pediment while yet the walls are scarcely begun, while yet their very disposition is almost unknown, would be an insane attempt, resulting in ruins which could only impede the work of generations to come by concealing the features of the plan already traced, and necessitating a removal of the rubbish.

Patient work, incessant work, faithful work, trusting work, testing work, which secures every course already laid, which rejects every doubtful stone and every suspicious cement, which lays a foundation not for to-day but for the ages, believing, and acting on the belief, that these ages will raise the walls with the same conscientious care, adding to the plan or even amending it where needed, perhaps reconstructing some of the foundations when better tests are known, never *patching*, never employing makeshifts, never building for the eye and not the heart,—this is the hope of man the race, felt by man the generation, and animating man the individual. This, in the only

sense which man can now give to the words, is God's work in man. This is the work of yesterday, to-day, and to-morrow. This is the real city and tower whose top may reach unto heaven (Gen. xi., 4), which no confusion of tongues can ever annihilate, for it is the work, not of one tribe, but of all tribes; not of one life, but of all lives; not of man, but of men.

ANTHEM, HYMN 424.

Words by A. J. ELLIS (*corrected*). *Music by* H. K. MOORE.

PLANETS circling every one
Round an onward darting sun;
Motion 'midst th' eternal stars;
Order still that never jars;
Motion, where upon the earth
Every death brings forth a birth;
Motion, where within our thought
Every Now from Then is wrought;
One perpetual restless ocean,
Motion, order; order, motion:—
Such is the world that God to man reveals
By every mind that thinks and heart that feels.

Life, religion, know no rest!
Stagnant thought breeds active pest!
What we alter not with will,
Alters by itself for ill.*
Ever planning and designing,
Working still, and still refining,
Making for the ideal goal,
Felt, not seen, within the soul,
Holding all God's sons as brothers,
Self alone as one of others;—
Such is the task that God to man reveals
In every mind that thinks and heart that feels.

---

* These two lines are an adaptation of one of Bacon's Commonplaces, which made a great impression on me when a young man, and runs thus: "Since things alter for the worse spontaneously, if they be not altered for the better designedly, what end will there be of evil?"

TRUTH.

In approaching such an old and well-worn, but at the same time extensive, subject as Truth, it is as well to clear out of the way some side issues which are often confused with the main inquiry. Honesty of purpose and distinctness of conception do not really belong to the question under consideration. No one doubts that to use words which are intended to convey an impression contrary to that felt by the speaker is dishonest, although occasions may occur when the charge of dishonesty appears harsh, as when a physician disguises his opinion of the dangerous state of his patient, believing that he might otherwise convert a risk into a certainty of misfortune. Again, not only to speak, but by silence, knowingly to lead or even allow others to form an opinion of a person's meaning which he does not himself hold, is in many cases mere dishonesty of purpose. This, however, does not imply that every man is to spend his time in making

everyone else fully conversant with his own opinions, or that opinions in process of formation may not be discretely and honestly kept back. Nay, more, to use words which should naturally convey the intention of the speaker, when he knows that under circumstances they will not do so, is simply "lying like truth," and is as great dishonesty of purpose as any other. But all these, and many others, are matters for the casuist, with which we have no concern to-day. Perfect honesty of purpose, without any occasion for casuistry, will be assumed.

More difficult to find, however, than honesty of purpose is distinctness of conception. The forms of language in which, as we shall soon learn by an example, every word bears the impress of some early and perhaps exploded theory, cropping up involuntarily as the sounds leave our lips, have much to answer for, but the methods pursued in education, where the last thought of the educator seems to be that he has to lead his pupils to think, are the greatest sinners in this respect. And when school is quitted and self-education begins, the vagueness of ordinary language in ordinary books, in sermons, in leading articles, in magazine articles, in all that comes popularly before the young thinker, makes his escape from a land of mist, if not a miracle, at least a matter of sincere congratulation. Very few do entertain clear conceptions on any one subject; none, of course, on all;

and yet it is within the reach of almost any man to know where he is clear and where he is hazy, and to understand at least wherein lies the nature of reasoning. With this, however, we shall not deal. We shall assume the most perfect honesty of purpose and distinctness of conception which can fall to the lot of man, and then inquire what does a person so qualified mean by truth?—by being true?—by pursuing the true? That all men so constituted will not give the same answer we may see by two such instances as John Henry Newman and Herbert Spencer. One, the Roman Catholic convert, who, after thirty years of experience, wrote last February that during the whole of that time he "never had a misgiving that the communion of Rome is that church which the Apostles set up at Pentecost," and that he has "never for a moment wished himself back" (Postscript on Mr. Gladstone's "Vaticanism," appended to his Letter to the Duke of Norfolk, 26th February, 1875). The other, the Apostle of Evolution, who is engaged at present in showing how religious beliefs sprang from human feelings and conceptions. But both men of unimpeachable honesty, with clearness of conception, and wonderful mastery of expression.

It seems almost ridiculous to turn from such men to etymological considerations. We might almost rather echo Pontius Pilate's tired and petulant question, "*What* is *truth?*" shrug our shoulders, and give

it up. Etymology cannot answer the question, but it can shew us what men, in ages so remote that every other record of their thoughts is lost, held to be the central conception involved, and singularly enough we find great diversity in these early attempts at a solution of the difficulty.

The Hebrew root (*amn*) has long been familiar to us in the word *Amen*, and its main conception seems to be *stability*, that which supports all things, and then that which we can rely upon, and to which we can give our own support or assent, as the English word *Amen* now implies. This stability is associated in early minds with the firm immovable earth, or, say, merely land, as contrasted with the instability of water. Modern thought has reversed the comparison. To the astronomer, earth is constantly moving with a motion constantly disturbed; to the geologist land is continually rising and falling, while the water preserves its level. Our present stability consists in periodicity of change, as our present exactness in an average of error.

The common Sanscrit word for true and truth (*sat*), seems to imply *presence;* and is, indeed, involved in the second syllable of that word. That which *is* is true, and that which is true is good, and a wife that is good burns herself on her husband's funeral pile, as we know by the word *suttee*, which merely means a good woman, and in its first syllable contains the root of

the word for truth. Years ago, when I was a young thinker, it seemed to me that people made a great fuss about nothing (this is generally the case with young thinkers, who, of course, cannot take account of difficulties they do not see), and that everyone must feel that the truth meant "the case as it *is*." This was the old Sanscrit feeling. Neither of us had attained the knowledge that all that reaches us is "the case as it *appears*." We had only laid one riddle on the back of another, without advancing a step towards a solution of either. We need not disturb the problem of existence to-day.

There are two Greek words for truth. One (*et-eos*) consists of the two first letters, or, in an enlarged form (*etūm-os*), of the four first letters of the word *etymology*, that is, the *genuine meaning of a word*. Its origin is obscure, but it is thought to be the same as the Sanscrit word just considered, and hence may be passed over. The second and more common word (*alēthēs*), the only one used in the New Testament, has not penetrated into our language in any form, but its meaning is clearly *unconcealed*, *unhidden*, a purely negative sense which does not give us much information. It was apparently applied to a man who spoke his thoughts instead of dissembling or falsifying them, and hence originally belonged to the domain of honesty of purpose, without any such philosophical or religious sense as it afterwards acquired.

The words for true, both in Latin (*vērus*) and German (*wahr*), seem to have flowed from the thought of *self-defence*, and the consequent necessity of *looking out sharp*, reporting exactly, and relying upon reports; at any rate, we find these conceptions hopelessly mixed up together in the two sets of words which we use, *very*, *verily*, *verity*, from the Latin, *aware*, *beware*, *wary*, *wariness*, from the Teutonic, and their numerous relations, with which I need not trouble you. Truth then becomes *sharp-sightedness*, a faculty of seeing things clearly, which does not help us far on our road.

Our own common English words *true* and *truth*, (*treow*, *treowth*,) have nothing to do with any of the preceding conceptions. They relate merely to *trust* and *faith*. The oldest English proclamation of our Norman kings uses the words *true* and *truth* simply in relation to loyalty to the crown. We still use the words in that sense. "Good men and true" are not moral men, whose words can be relied on, but capital fighters, that will be faithful to their cause. The sailor in the song is to his love as "*true* as the needle to the pole." And it was an easy transition from this conception to *trustworthiness*, which is the more general present signification. But it would not help us to forming a philosophical notion of *truth*, and unfortunately the genuine old English word (*sóth*), now scarcely existing except in the word *forsooth*, does not help us at all, for

its origin is quite unknown, and it is mixed up with the word to *soothe*, that is, to flatter or tickle a person's ears, and hence to calm down anger, conceptions not now generally thought particularly allied to truthfulness.

Our examination of the oldest conceptions has therefore had almost a negative result. The most seductive and the most deceptive is the old Sanscrit notion of *being-ness*, *existence*, *reality*. The others are derived from very concrete analogies or actions, which in their literal sense are continually mixed up with the new metaphorical signification, to the destruction of all clearness of conception. But as a whole we may see running through them all, a feeling that truth was something external to the thinker, something on which he might rely for support or assistance, something which was not any part of himself, which might indeed be part of his duty towards others, but which as a general rule had existed and would continue to exist quite independently of himself. In short, we see in these old conceptions some germs of a more modern conception, which regards truth as *absolute*, that is, free from all the conditions which hamper humanity, and which therefore forms the great character of the *divinity*. For myself I own that I am unable to throw aside the conditions under which "we live and move and have our being," (Acts xvii. 28,) even in thought; that I see and feel everything through them, and know nothing

except by them. Hence the word *absolute*, as relating to truth, fails to convey any notion to my mind. I recollect reading that "a man's highest convictions are *to him* the absolute truth." The two little words *to him* broke down the whole of the absoluteness in the statement, but left it far too individual to be readily accepted. No man does or can repose his whole confidence in the convictions of any single man, be it even himself. The Vatican Decrees indeed affirm that one man in the world under certain circumstances is infallible, but even they do not affirm that this infallibility avails against previous infallible utterances. Those who go about proclaiming their own little half-formed conceptions, as divine and absolute truth, we now disregard, or, if very troublesome, turn over to the mad-doctor. It may be that in so doing we somewhat imitate the indifference of Pilate or of Gallio, an indifference which has been gravely reprehended for some eighteen hundred years; but the very magistrates who would join in this reproof, would adopt a similar course of action under similar circumstances. At present we are instinctively afraid when we hear a person declaim vehemently about "the truth." We always suspect that he is talking about matters of which he knows little or nothing individually, or about which mankind knows little or nothing collectively. And we incontinently shift the ear-trumpet of our attention.

But is there no such thing as Truth? The word

thing is unfortunate. We do not know that there are any such *things* as heat, and light, and electricity; we do not know what they are, though we talk of measuring their amounts, but we know a very great deal about whole series of phenomena which these words recall. We may therefore well say that we do not know that there is such a *thing* as truth, and yet that there may be a whole series of phenomena to which the term truth applies. What are these? What are true thoughts and true conceptions? and how do we know or can we learn that any given thoughts or conceptions should be reckoned as true? This is a very much more human way of putting the case, and one to which some sort of an answer may be attempted, but not immediately. The questions are far too practical and too serious to be answered off-hand, and any direct or immediate answer that I could attempt would most probably mislead you as to my meaning, which, of course, after all may not be correct, for I am no pope, and am particularly anxious on such a momentous point as the present not to dogmatise, in the papal sense of affirming propositions which must be accepted without question.

Let us first ask ourselves, we, the individuals here present, how we have acquired the modicum of knowledge which we possess. Well, we went to school or are still going to school, (I have been going to school all my life,) and we were taught many things which we accepted at once as correct accounts of facts. Among

other things we learned to reckon, and we were constantly doing sums, which were sometimes right and sometimes wrong. When wrong we had to find out where and why, and to set the matter right, and we discovered finally that when we fully carried out the rules given us without any slip of memory, the sums always would come right. In many cases we were perhaps able to see ourselves that the rules were right. Our fingers taught us that 3 and 7 were 7 and 3; and we could easily arrange dots on slates to show that 3 times 7 were 7 times 3. By the common processes of multiplication and addition we convinced ourselves generally that we got the same result in whatever order we added or multiplied. We therefore accepted this as a correct representation of the result, whatever the numbers added or multiplied might be. Perhaps there is not one in a hundred thousand that could prove that it must be so. Yet we all believe it, we constantly use the rule, and never find it fail. So do our neighbours. Hence we believe that the rule is true, that is, so far as this matter is concerned, that our prediction with respect to the result will always accord with the result obtained. It so happens that there is no particular difficulty in showing that this conclusion is involved in the nature of numbers, although no one but a professed mathematician might be ready to prove that it is so off-hand. But let me take another case of numbers, very easily stated and tried in numberless instances.

Any even number whatever, that is, any number which is twice some other number, is the sum of two prime numbers, that is, of two odd numbers which cannot be divided by any numbers but themselves and one. Thus, 16 is 11 and 5, 24 is 17 and 7, 100 is 97 and 3, and all these numbers, 3, 5, 7, 11, 17, 97 are primes, that is, they cannot be divided out by any number but themselves or one. Now this rule has been tested over and over again. You will find it amusing to do so for yourselves up to 100. No one has really any doubt that it represents a relation involved in the nature of numbers; but none of those who have paid the most attention to the subject have been able to shew that this is the case. Is the rule true? that is, does there exist any even number which could not be so made up of the sum of two prime numbers? Science can give no answer. Nay more, the science of averages might lead us to doubt the general correctness of the rule from the very fact that made us trust it, namely, that it answered in every case we tried. Of this you can easily form a notion by tossing a penny—philosophically. Newton blew soap bubbles to good purpose, and philosophers have tossed pennies many thousand times in succession to good purpose. Just count how many times 'head' comes down in succession, and observe that though it not unfrequently comes down twice in succession, it much less seldom comes three or four or ten times, and that the oftener it did come down

'head' in succession the less certainty you would feel about its coming down 'head' next time, and if it really came down 'head' fifteen times in succession you would have no expectation at all of its coming down 'head' for the sixteenth time. In 2048 cases actually tried, it came down 'head' fifteen times in succession on two occasions, but never once came down 'head' sixteen times in succession. This would lead us to think that the oftener our prediction came true, the less likely was it to prove always correct. Yet all our belief lies the other way; and when the occurrence is very common indeed, we esteem the non-occurrence wonderful, or miraculous, and a proof of divine interposition. But in all rules for framing predictions which men of science admit to be correct, no real exception has yet been observed to happen; and apparent exceptions have either failed to stand examination when they could be examined at all, or have been more or less readily accounted for on other principles. Hence we have really no alternative on which to base any anticipation of variation, and the analogy of tossing a penny, in which two events were equally possible, ceases to have the least weight.

Scarcely one fragment of our knowledge is in the state of the rule that you may add or multiply in any order without affecting the result, for in scarcely anything beyond numbers and space do we see our way to a comprehension of the nature of the matters dealt with

sufficient to make us see that the rule for predicting is involved in the events themselves. Seldom, indeed, do we arrive at a case in which we can easily obtain an immense number of instances and examine the result of each, as in the other example of an even number being the sum of two primes, so that the complete test fails only from the inability of a finite man to control an infinite number of facts. The point here is subtle, and requires much attention, because in all matters of the highest import to us, this inability of the finite to grasp the infinite is at the very root of all our inquiries. In the case of mere figures it is evident enough. The mind soon lags behind. We can talk of a decillion drops of water, but it is mere talk. When we are told they would compose a globe having a diameter which would reach from here to the north polar star, we are lost in a vague feeling of immensity, but I doubt whether we gain a really clearer conception. Yet a decillion, that is a number written by the figure 1 followed by sixty zeroes, is a mere nothing as compared to the endless progression of numbers. But what is required is to control this infinity which is hovering over us at every time and place, in every general assertion we make, and in every investigation we undertake.

The greater part of our knowledge is in the state of having been tested in a few cases only, by a few men, with great care certainly, but always with a chance of

error, while the knowledge itself professes to embrace the unembraceable infinity of cases. Can we then wonder that sages sweep it all away with a scornful waive of the hand, and say? "This is human groping, listen to Divine reason!" And can we also wonder that the poor philosopher quietly rejoins? "Shew me how to test it!"

Here we come to the pith of the matter, the test, its nature and its value. In the cases of numbers already cited the test was the agreement of observation with prediction. This is the test of all knowledge. From the past we learn the present and predict the future. As I once heard a professor say: "A page of the Nautical Almanack is the best proof of the theory of gravitation." Why? The Nautical Almanack predicts three years in advance the exact apparent position of the moon with respect to the fixed stars for various hours of every day in the year. The solitary captain in his ship at sea observes, and notes, and thence deduces his longitude, and shapes his course with certainty. The fixed observatories throughout the world are always checking the prediction by observation. Well, it's not always right. Gravitation is about the most certain of our knowledge beyond pure geometry, but our predictions regarding the place of the moon, which are founded on it, are not always right. They are never far wrong. Half a second of time is considered a large error. It is possible that

our theory of gravitation may be only a first approximation to the truth, but the first thing the astronomer suspects are his instruments, and then his calculations. At this moment I believe the Astronomer Royal, whose observatory at Greenwich is specially dedicated to the moon, is overhauling the whole of the lunar calculations, which are lengthy and laborious in the extreme, and comparing them step by step with the records of observation. That is how we test nowadays. Leverrier has been doing the same with the planet Saturn, and is not satisfied with the result. His want of satisfaction may lead to new discoveries, as an examination of the irregularities of the planet Uranus led to the discovery of the planet Neptune by Leverrier and Adams. But in the meantime the extremely close agreement of observation with prediction leaves no doubt on any mind of the reality of the theory of gravitation. And the intense belief of humanity in the reality of this theory, has led to the utter rejection of that papal fulmination against the motion of the earth to which the two minimite fathers who edited Newton were obliged to submit. And this rejection involves other consequences of extreme importance to both Jews and Christians.

We are now advanced far enough for a first approximation to an answer to the question, What things are true? Wherever the results predicted agree with observations, the prediction is true. Where such pre-

dictions are legitimate deductions from a theory, then so far as those deductions are concerned the theory is true. Observe the limitation. We have many theories in this condition that, within certain limits, they lead to results which agree with prediction. But beyond those limits we may be either not able to test or we may have found them fail. We then believe that we have a part of the true theory, but are ignorant of other parts. Even this however is not quite a safe argument. For example, the present received account of light is this, that the whole of space and transparent bodies are full of something like very fine air called ether, and that when this ether is set in vibration and enters the eye we have the sensation of light. This is a theory which can be reduced to calculation, and by the help of a few subsidiary theories, leads to most beautiful results agreeing with observations which these hypotheses frequently suggested. Some philosophers have even asserted that the evidence for the wave theory of light is equal to that for the theory of gravitation. But there is this difference. The theory of gravitation assumed nothing that cannot be even now duly tested. The theory of light assumes the existence of an ether for which we have not at present succeeded in finding a test. The beautiful mathematical laws that have been deduced do not shew the existence of the ether, but only of certain periodic conditions of which the waves of ether were an easy representative.

Hence we arrive at another notion, namely of assertions being true within limits, and of leading to results which stand the test of observation, while the theories themselves cannot be so tested. Of theories of this class I have long been in the habit of speaking to myself, as being, in respect to prediction, "as good as true."

These are rather abstruse points to deal with on such an occasion as the present, but they came in my way, and I could not avoid them. Two others must just be indicated. In the first place, it is perhaps never possible to perform the required test with perfect accuracy, though considerable reliance may generally be placed on modern systems of testing. But mistakes may and do occur which give numerous theories a provisional character. In the next place, the mode of grappling with the difficulty arising from the infinite number of cases to be tested, is not on the whole satisfactory. It consists in an assumption that nature is uniform, that is, that what happens under certain conditions will happen again when those conditions recur. We have no proof of this, and no means of proof. Our only grounds for believing it is that it has never failed us as yet. It is not necessary to enter into the difficult arguments for and against. We see that it is simply a device to shift the impossibility of testing the correctness of any assertion for an infinity of cases, on to the possibility of testing it for one particular case. But, nature may not be uniform after

all. The millions and millions of cases in which the rule has held good may be succeeded by a few failures. For example, ancient and modern miracles, whether Christian or other, if established to the satisfaction of philosophers, would upset the rule. And then? Why, then, our knowledge is ignorance and our truth a lie. This alternative should be very carefully borne in mind. The whole of our knowledge, beyond some mere abstractions which ought not really to be considered exceptions, depend upon the correctness of this assumption that nature is uniform. Even, strangely enough, our evidence for miracles, for divine inspiration, for revelation, depends upon this assumption, for if nature were irregular all our witnesses might come under the exceptions, and their testimony would be extinguished. And yet, fundamental as the proposition is, it has very slowly gained ground. It was early admitted for numbers and space. It stumbled long at astronomy, especially as regards comets and meteors. It is scarcely three hundred years old in physics, and less still in chemistry. In the sciences of life, and society, and morals, it is either of yesterday, or not yet admitted by the greater number of teachers. The Church of England certainly does not admit it as an element in the government of the universe, except by the curious implication of giving God a "character" for justice, which should exclude arbitrary arrangements, and make uniformity the immediate action of

God. But prayers for rain or fine weather—that is for arbitrarily altering meteorological uniformities—shew that the conception has not yet been seized. As for the Church of Rome, the declaration of papal infallibility has once and for ever cut it away from the only sheet anchor of knowledge, by the contrivance of substituting the will of an individual man, which it still believes to be free from natural uniformities, for the constant relations on which alone depends all that man has ever learned and possibly all that man will ever learn.

We have now perhaps reached a position in which we can attempt a more complete answer to the troublesome question,—What is Truth? A true proposition is, first, one which can be tested, and secondly, one which will stand the test. Testing is, consequently, called verification. A true proposition is therefore one which is verifiable and has been verified. As long as it is merely verifiable, and does not contradict what has been verified, it simply has claims to be considered true. But it cannot be called true until the verification has been completed. Of course in practice this definition of a true proposition has to be surrounded with certain limitations respecting the nature of the verifications required, and how far that is included in other verifications, with none of which we need trouble ourselves in such very general discussions as the present. These are only mentioned to shew that they

are not forgotten. A verified proposition becomes a part of knowledge. But it may at any time be shewn that the verification was incomplete, that the observations were inaccurate, or that certain important conditions were omitted from consideration because they were unknown at the time. The verification may then be recommenced and better conducted, and the result may possibly be failure. The proposition then ceases to be true or to form a part of knowledge. What was true yesterday is not necessarily true to-day. New knowledge has been gained meanwhile, and is brought to bear on the old, to re-construct it, to adapt it to the new conditions. But all our new knowledge arises through our old. Knowledge is therefore progressive.

And truth in the abstract is progressive thought, thought gradually growing on to perfection by the slow process of continual use and verification, but always a tender plant, liable to blights, requiring careful protection from the ravaging insects which infest it, and constant tending by the hand of man. This is what I have sought to express in the words of the hymn which was sung this morning—"Truth," I there say,

"Truth is man's maturest thought,"

implying no absolute abstract entity external to man, and no particular conception peculiar to an individual man, but the ripest growth of the combined and in-

herited thought of man, the race. To make this still more clear, I added—

"Which the earnest grasp and try,"

indicating the sole means of discovering whether it is truth or not, by earnestly taking in its whole bearing, and rigorously putting it to the test.

This truth, this progressive thought, is the very heart's blood of our race. Poison its source, and the race languishes or dies in the arms of that old ignorance whence it has so painfully escaped. One single act of retrogression may cause inappreciable loss. The potentate who has more hearts in his hand than any other in Christendom (that is, in the regions where, despite the existence of an authorised stagnation, thought has most progressed) has issued his fiat against independent thought. The eighty condemnations of the Papal Syllabus range over every class of proposition which has been started in the interests of progressive thought, and would extinguish all thought that has not the Papal sanction. This is the great cankerworm which since 8 December, 1864, gnaws at the root of the tree of truth. It will not, I trust, prevail, even among Roman Catholics. But it raises the most cruel and unmerciful of all wars—a religious war—against the small army of thoughtful men who are loyal to progressive thought, true to truth. It will not, I think, prevail, because some of the most thoughtful of those without the Roman pale have awakened

to the sense of the enormity of its treason against humanity, and will seek to render it harmless, or draw a cordon round it like an infected city. It will not, I think, prevail, because even among those who are nominally Roman Catholics and those who are sincerely Roman Catholics, there exist men of science, apostles of truth, who in that inorganic or merely organic world where the will does not form one of the elements of research, carry out to the full those principles of verifiable and verified knowledge, which no syllabus can extinguish, and whose life is the death of dogmatism. At present, indeed, here as there, that is, among all Christians, two worlds are recognised—one bound to constant relations in which truth as just defined, may live, and one bound to an arbitrary will in which there is no interpreter but the priest. But the first world is ever waxing, and the second ever waning. The priest has just shot off his last arrow, infallibility, though it bears a barbed head long since tried in vain under other names and in other lands. We know, indeed, that among existing Roman Catholics this new dogma has raised a schism, which, though not very extensive, is still significant. But a new generation, taught by existing priests, and by mothers led by existing "directors," may accept the infallibility of an Italian priest with that implicit faith with which the mass of Protestants accept the infallibility of the Bible. The difference between the two infallibilities

is really very slight. That of the man is even built on that of the book, which it merely interprets authoritatively, not by the "inspiration" which was vouchsafed to its writers, but (mark the delicate distinction) by the "assistance" of the Holy Spirit. But here we reach regions where truth ceases, because verification is as yet impossible, and verifiability as yet inconceivable. Yet here, and just here, begins for those who mount lightly in the airy balloon of ignorance over the peaks which truth-seekers painfully explore, the real interest of the whole question. Truth for them is not progressive thought in regions where man's intellect can penetrate, but lies only amid the clouds which veil the Godhead. This is not Truth at all in the sense here proposed: its real name is Speculation; its instrument is not verification but intuition; its results are not progressive, but cataclystic—heaped up and washed away by each new wave of thought. To these important considerations I hope to call your attention at our next meeting. To-day I have been desirous of laying a foundation for their examination, of shewing what is the character of our reliance on propositions which command universal assent; their credentials, verification; their basis, the uniformity of nature. These are the very birthrights of humanity; these are the title-deeds to its inheritance of thought these are the sole instruments by which it can secure advancement, and become, step by step, the vicegerent of the earth. These are what we have to fight

for and defend. These are what retrogression impugns, and standing still nullifies. They demand the head and heart of every living man, who would use the sole instruments he can as yet wield, or may indeed ever be able to wield, for opening out the road to the goal of his aspirations. If I have to-day studiously spoken in the dry cold tones of the philosopher, it is not because the warm blood of enthusiasm does not flow in my veins when I contemplate the cause and triumph of truth, jealously watch its assailants, and zealously fly to its defence. It is because I would paint truth truly, exaggerating nothing, extenuating nothing; it is because I believe that "naked truth," as runs the expressive phrase, is far more attractive than truth in garish clothing, which conceals more than it shews, and raises false expectations while it deceives the eye. The truth-seeker, with more justice than the great prophet of Nazareth, as depicted in the fourth gospel, may say to those who stand in his way: "Ye worship ye know not what: we know what we worship," and, adapting the rest of the speech, may add, "for salvation is of truth" (John iv. 22). And in the words of the hymn already quoted, I would earnestly call upon you in all the humility of imperfect knowledge, and with all the desire of full understanding, to remember, and act on your remembrance, that—

> "Who not gath'reth, scattereth!
> Work alone can shew our faith,
> Help is life, indifference death!"

DISMISSAL.

One more echo from my hymn on parting:

"Who for truth has never fought,
Who lets falsehood known go by,
Propagates himself the lie."

South Place Chapel.

WORKS TO BE OBTAINED IN THE LIBRARY.

BY MONCURE D. CONWAY, M.A.

	PRICE. s.	d.
The Sacred Anthology: A Book of Ethnical Scriptures	10	0
The Earthward Pilgrimage	5	0
Republican Superstitions	2	6
David Frederick Strauss	0	3
John Stuart Mill	0	2
Sterling and Maurice	0	2
Mazzini	0	1
Intellectual Suicide	0	2
The First Love Again	0	2

W. J. FOX.

Memorial Edition of his Works. 12 Vols. published at 60s.	30	0

BY ALEXANDER J. ELLIS.

Salvation	0	2
Truth	0	2

BY W. C. COUPLAND, M.A.

The Conduct of Life	0	2

BY FRANCIS W. NEWMAN.

The Service at South Place Chapel, Sunday, May 20th, 1860	0	3

BY HENRY N. BARNETT.

Religious Enthusiasm	0	3
Hymns and Anthems	3	0

SPECULATION:

A DISCOURSE

PRECEDED BY

ABSOLUTE RELATIVITY:

A MEDITATION,

DELIVERED AT

SOUTH PLACE CHAPEL,

SUNDAY, 16TH JANUARY, 1876.

BY

ALEXANDER J. ELLIS,

B.A., F.R.S., F.S.A., F.C.P.S., F.C.P.,

Vice-President (formerly President) of the Philological Society, &c.

WITH

THE READINGS AND THE AUTHOR'S HYMN USED ON THAT OCCASION.

The Second of a connected Series of Three Discourses delivered in the same Place and Month.

Price 2d.

ORDER OF THE SERVICE.

HYMN 159—

"We see but dimly through the mists and vapours."

Words by LONGFELLOW. *Music by* BARNBY.

READINGS—

I. F. W. Newman's Axioms of Religion, as follows, p. 3.

II. How and Why, from the first and last pages of "The Unseen Universe," as follows, p. 5.

HYMN 266, as follows, p. 8.

MEDITATION, "Absolute Relativity," as follows, p. 9.

ANTHEM 193—

"Can'st thou by searching find out God?"

Words from THE BIBLE. *Music by* H. K. MOORE.

DISCOURSE, "Speculation," as follows, p. 13.

HYMN 267—

"Ope, ope, my soul; around thee press
A thousand things divine.

Words by AN UNKNOWN AUTHOR. *Music by* BATTISHILL.

DISMISSAL, as follows, p. 43.

READINGS.

I.—F. W. NEWMAN'S "AXIOMS OF RELIGION,"

From his "Theism, Doctrinal and Practical," 1858, pp. 25, 26; the last two lines from page 14.

To reckon up the Axioms and Postulates of Religion,
Involves no other doubt than in all the Deductive Sciences,
As in Geometry or Mechanics, where controversies still linger.
Whether Axioms be two or ten, the Science is not the less stable,
So that only every Axiom be surely affirmed by good sense.
Yet, for the beauty of reasoning, let Axioms be few,
And for its clearness, let them be simple, and in some sense co-ordinate.
Until better be proposed, we may rest in the following Axioms :

I.

"Not *blind*, but *intelligent*, is that Omnipresent Law
"And that Power, which we discern to animate the Universe."
Also, by *definition*, we entitle this Power GOD.

II.

"The God upon whose energy the human spirit depends,
"Must have all that spirit's faculties, and more beside."

III.

"God is observant of the moral action of man,
"And, approving our efforts for Right, disapproves our Wrong."

IV.

"The God who approves our Rectitude, is himself Perfect in Rectitude."

V.

"Adoration of God is intrinsically suitable to man."
Corollary—"Such Adoration therefore is pleasing to God."

Nothing would I call an Axiom, save that which Intuition furnishes,

So that thoughtful men believe it by the evidence of thought itself,
Not by conscious experiment and by external proof,
Even though experiment and test from without be possible.
Of such a kind, as it seems, are the Axioms here proposed,
To which most men will assent for their intrinsic reasonableness,
As to those which concern Space and Surfaces and Lines.
Nor do any of them involve language doubtful or dark.
Nor is their assertion wild or mysterious, more than their denial.
They are denied by very few ; and most of the rejectors
Reject them only in hatred of Bigotry and Superstition
Which Atheists, not unnaturally, confound with Religion.

* * * * *

On these Axioms depends the *Absolute* or Abstract religion,
Which belongs to every moral being, and therefore to man.
But for *Human* and practical religion we need also a POSTULATE,
Separate in nature from those which we rank as Axioms :

POSTULATE.

"God gives, to those who pray to Him, increase of spiritual strength."

Scarcely may one say of this that Intuition affirms the truth;
But *Instinct* prompts the act, and *Experience* affirms the truth.
Such truths are Experimental, like the "Laws" in Mechanics,
And yet by pure reasonings, without the distinct experience,
This truth may be deduced from a simpler truth of experience,
Which all ages and nations everywhere attest,—
That "God within Man's Conscience commands and forbids."

* * * * *

"The Life which is in all Nature is the life within every Conscience,
"Intelligent, Moral, Mighty and our natural Lord."

II.—HOW AND WHY.

Extracts from the beginning and end of the work entitled : "The Unseen Universe, or Physical Speculations on a Future State," 3rd Ed., 1875, part of Arts. 1, 2, 3, and 258.

1. The great mass of mankind have always believed in some fashion in the immortality of the soul ; but it is certain that we may find disbelievers in this doctrine who yet retain the nobler attributes of humanity. It may, however, be questioned if it be possible even to imagine the great bulk of our race to have lost their belief in a future state of existence, and yet to have retained the virtues of civilised and well-ordered communities.

We have said that the disbelievers in this doctrine form a minority of the race ; but at the same time it must be acknowledged that the strength of this minority has of late years greatly increased, until at the present moment it numbers in its ranks not a few of the most intelligent, the most earnest, and the most virtuous of men.

It is, however, possible that, could we examine these, we should find them to be unwilling disbelievers, compelled by the working of their intellects to abandon the desire of their hearts, only after many struggles, and much bitterness of spirit.

Others again, without absolutely abandoning all hope of the soul's immortality, are yet full of doubt regarding it, and have settled down into the belief that we cannot come to any reasonable conclusion upon the subject. Now, these men can have had nothing to gain, but much to lose, in arriving at this result. It has been reached with reluctance, with misgivings, not without a certain kind of persecution, nor without the loss of friends, and the stirring up of strife ; they have fearlessly looked things in the face, and have followed whithersoever they imagined they were led by facts, even to the brink of an abyss.

* * * * * *

2. A division as old as Aristotle separates speculators into two great classes,—those who study the How of the Universe, and those who study the Why. All men of science are embraced in the former of these, all men of religion in the latter. The former regard the Universe as a huge machine, and their object is to study the laws which regulate its working ; the latter again speculate about the object of the machine, and what sort of work it is intended to produce. The disciples of How are accused by their adversaries of being willing to sacrifice the individual to the system ; while the disciples of Why are accused by their adversaries of being willing to sacrifice the system to the individual.

We may compare the Universe to a great ship plying between two well known ports, and carrying with her two sets of passengers. The one set keep on deck and try to make out, as well as they can, the mind of the steersman regarding the future of their voyage after they have reached that port to which they know they are all fast hastening, while the other set keep down below and examine the engines. Occasionally there is much wrangling at the top of the ladder where the two sets meet, some of those who have examined the engines and the ship asserting that the passengers will all be inevitably wrecked at the next port, it being morally impossible that the good ship can carry them further. To whom those on deck reply, that they have perfect confidence in the steersman, who has informed some of those nearest to him that the passengers will not be wrecked, but will be carried in safety past the port. And so the altercation goes on ; some who have been on deck being unwilling or unable to examine the engines, and some who have examined the engines preferring to remain below.

3. Our readers will perceive from what we have said, that difficulties regarding a future state of existence are most likely to arise amidst the disciples of How or those who study the machinery of the Universe, and inasmuch as this class has greatly increased

of late, it follows that the disbelievers in or doubters of the soul's immortality have increased likewise. The disciples of Why have, on the other hand, existed from time immemorial, and in the plenitude of their power have frequently carried themselves with much violence towards the disciples of How, who are of comparatively modern origin. It must not, however, be inferred that this old and venerable family have always been at peace among themselves, for there have been numerous contentions between their various branches, not the less acrimonious because the contending members have been to some extent supporters of a common cause, believing in some fashion in the immortality of the soul and the reality of the world to come.

* * * * * *

258. * * * The truth is that science and religion neither are nor can be two fields of knowledge with no possible communication between them. Such an hypothesis is simply absurd.

There is, undoubtedly an avenue leading from the one to the other, but this avenue is through the unseen universe, and unfortunately it has been walled up, and ticketed with "*No road this way*," professedly alike in the name of science at the one end, and in the name of religion at the other.

We are in hopes that when this region of thought comes to be further examined it may lead to some common ground on which the followers of science on the one hand, and of revealed religion on the other, may meet together and recognise each others claims without any sacrifice of the spirit of independence, or any diminution of self-respect. * * *

It must never be forgotten that, whether we take the scientific or the religious point of view, one great object of our life in the visible universe is obviously to *learn;* and that (as human beings are constituted) advance in learning necessarily implies a high purpose kept steadily before us, and a continuous and arduous pursuit. * * *

HYMN 266.

Words by A. J. ELLIS. *Music by* FRANCK.

All is changing, yet abiding,
Death is ever giving life;
Under weakness power is hiding,
Love is in the midst of strife,
In confusion order's rife.

Brains are vainly taxed with guessing
Why the world its form assumed;
Few have ventured on confessing
Light on Why has never loomed
Since primeval darkness gloomed.

How the world is forward going
Bit by bit has man explored—
How, not Why, is worth our knowing,
Telling of a single cord,
Binding all to one Great Lord!

Free from crude creative passion
Own and love the unchanging code;
Whatsoe'er his thoughts may fashion
Man above and 'neath the sod,
Resteth in the hand of God.

ABSOLUTE RELATIVITY.

A MEDITATION.

Study the colour-blind. In one the faculty of seeing red is vanished, and scarlet to him is black; to another green seems scarlet. The little yellow ray may still work true, but it is so smothered with the red and green confusion that it does its work with difficulty. Yet, colour-blind as they are, they all see, they all know light from darkness, and distinguish form correctly.

Then comes astygmatism into play, and objects elongate or widen, or all outlines are blurred. Then another is dazed with near, and his friend with distant, objects. All manner of glaring stars flaunt before this eye, or a dark and spreading disc shades the centre of that. Here the vision grows dimmer and dimmer till all is obscured. One courts the light, the other shuns it with pain. Stranger still, one sees but half the object he looks at, the rest being always hidden. Another sees each object double. To one all are

pygmies, to another giants. And in every eye there is a large patch which cannot see at all.

The mental vision is as the bodily, but it is a thousandfold more varied. No two eyes may see quite alike when unassisted, but no two brains can think alike even when assisted. Man is chained as a galley-slave to his own dimly lighted mental cell, where the light peers through glass of motley hues. He knows not the white light of reality. The outlines of things without are broken by the refraction of his twisted window panes. And each man thinks that he alone sees true.

Let us take a lesson from the astronomer. He has long learned that he cannot adjust his instruments correctly, and that when he looks through them he never sees a star where it really is. But he has learned to discover how far his instruments are wrong, and from the apparent to calculate the real place. When man thinks to adjust his mental glass with perfect correctness to sweep his ideal heavens and map them out for other men, he fails disastrously. He can never see but as a man, and all his hope lies in discovering the direction and amount of his error, and from many errors approximating to the right.

All man's thoughts are relative. They are controlled by his capacity and by his surroundings, which lead him this way or that, as a pebble perhaps decided the forking of the mighty Orinoco, and made it reach

two seas by two divergent channels. But within him lies a power the river possessed not. He can be guided consciously. What he has to learn chiefly is that he sees everything as in the glass of his own mind, dark and enigmatical, relative not absolute. From this relative he can never shake himself free. "All we think is relative; this is the only absolute assertion we can make," observed the youthful Comte most pregnantly, though parodoxically. And the best corrective of all absolute assertion is the wholesome remembrance of this absolute relativity of all our thoughts and all our feelings.

Man is man, and no thinking will make him a god; no majority of bishops will make him infallible; no amount of unverified speculation will enable him to grasp the truth. It is solely by recognising his own nature, by knowing the limits of his own powers, and his value as a unit in the mass, that he can hope to contribute to the final certainty of his race. Self-devotion, self-sacrifice, each for all, all as one, these are the instruments for wearing off the corners of relativity, for correcting the distortions and discolorations of individual mental vision, these are the steps by which man may hope to reach the temple of the Highest and at last see him, as it were, face to face.

SPECULATION.

In my discourse last Sunday I endeavoured to point out the exact nature of Truth as now conceived. A statement is true which can be tested, and has stood the test. Of all other statements the utmost that can be said is that they may be true, provided that they are not opposed to what has been already established as truth, and that if they are so opposed, they are not worthy of further consideration, unless it can be shewn that there is good reason to suppose either that proper tests had not previously been applied, or that proper tests had been improperly applied. If such good reason can be shewn, then it becomes necessary to re-test the old statements. The advance of knowledge, and the improvement in methods of research has not unfrequently required this re-testing to be performed, and sometimes with the result of modifying former conclusions.

A conspicuous example of this occurred so lately as

last Thursday evening, when I heard Professor Tyndall read a paper before the Royal Society, in which he was able to point out the sources of error in experiments which had previously been held by many thinkers to render the admission of spontaneous generation a part of knowledge, and had made most others hesitate in denying it, and further to shew, by repeating those experiments with scrupulous accuracy, but in such a way as to exclude the sources of error which he had detected, that they failed to make spontaneous generation even probable.

Hence, as I stated, Truth is essentially Progressive Thought. Our knowledge may, indeed, be likened to an ever-narrowing spiral approaching nearer and nearer to the central core, but never attaining it. The whole process of testing depends, however, on one fundamental assumption, that Nature is uniform, that is, that the same circumstances are invariably accompanied or preceded by the same circumstances, or, as it may be more philosophically expressed, that there are constant relations of simultaneity and succession among all phenomena. It may seem humiliating to reduce all knowledge to an assumption, especially an assumption which is not accepted even yet by everybody for every phenomenon, and which had not been even distinctly enunciated or acknowledged as the foundation of our knowledge till a comparatively recent period. The old philosophers and men of science, the old

medievalists, and those who tread in their paths, knew nothing about this assumption. Although acting on every ordinary occasion as if it were correct, believing most sincerely, that fire would burn and water drown all ordinary men, and that they themselves were ordinary men, yet in their philosophy they dreamed of extraordinary men whom fire and water would not harm, and thus missed the point, which lay in the conviction that all is ordinary, and nothing extraordinary. It is this conviction which distinguishes the philosopher of to-day from the philosopher of the past, and from the theologian of all times. And although the assumption of the uniformity of Nature cannot be tested except by processes which involve the same assumption, and are therefore worthless, yet all those who have been able to examine, even in part, the millions of conclusions which flow from it, and contrast them with observations as they arise, have an unshaken and constantly more firmly rooted conviction in its efficacy as a guide, in its certainty as a faith. And not one of the busy throng that crowds our streets but acts upon it in all cases of life and death, without knowing it as a separate assertion, without, most probably, being able to formulate it himself, but yet with an unhesitating self-devotion which the priest has never been able to evoke.

Now those who have listened to such statements cannot but have observed that they confine knowledge

within very narrow limits, and that they seem to allow of no method of enlarging those limits. The saying of Newton, on his death-bed, that he felt himself but a boy picking up pebbles by the side of a boundless ocean, marks distinctly a great philosopher's feeling of the limitation of knowledge. Nor was it a mere transient feeling, or a mock humility. Every one that has studied is fully aware of the intense feeling of the extreme smallness of our knowledge, and of the infinity of relations still awaiting discovery, which grows upon him as he works, till he is ready to join in the paradoxical cry : "The more I know, the more I know that I know nothing!" But when a priest of any time or creed arises and says to this confessed ignoramus, "Why, then, not accept the knowledge I would give you?" the answer is simply, "Because in the matters you teach you do not merely know nothing, but less than nothing, for you spurn the only foundation of knowledge from under your feet." But all the more pressing is it to know how this little truth, which has at last germinated, may be further cultivated, how fresh plants may be introduced and tended, till the tree of knowledge becomes a glorious forest.

The first stage is to guess, or in Latin to speculate, and in Greek to theorise. We are doing it every day, almost every hour, of our lives, and are therefore perfectly familiar with the process. We find indeed that there is a great difference among guessers, and that this difference consists partly at least in their different

degrees of power, real or presumed, to draw conclusions from imperfect materials. It must be a very young child indeed, whose notions were founded on toy Noah's arks, that would guess a snuffbox to contain an elephant, though there are persons who guess that a certain book which can be easily carried in the pocket, contains all that is necessary to salvation. It does not at all follow that because one person has more knowledge than another he will guess better, though we have no doubt that one who has the faculty of guessing will succeed better the more he knows. The faculty of guessing well, known as "insight," is not at all common, nor does it ever exist with equal force in all directions in the same person. It is the modern substitute for "inspiration," and it has the modern advantage—or clog—whichever you take it to be—of verifiability, of requiring to be tested, and of capacity to be tested. It is a wonderful thing when it comes to the thinker, when, after a problem has baffled him for years, till it has been almost given up in despair, he wakes suddenly in the night, like little Samuel, and lo! it is there! Who does not know the story of Oersted, that great Dane, who in 1819, in the midst of a lecture to his students, was struck with the thought that a galvanic current passed lengthwise round a magnetic needle would, according to the direction of the current, cause the needle to deflect to the right or left, and, unable to contain himself,

dismissed his class, rushed to his laboratory, made the experiment, and enriched mankind with the principle of electric telegraphy. This is modern insight; this is our substitute for "inspiration;" this requires no prisons and racks and fires to uphold; this is how, in the words of the late Sir Arthur Helps, we now "guess at truth."

Guessing, then, which shall enlarge knowledge, requires first a knowledge of what is known, and secondly a power to combine that knowledge, to marshal it in a given direction, to see how one thing leads on to another, or implies the presence of another; to set the train of a man's thinking organs into action, till, even at times without volition, they furnish the required intuition, the thought that has to be tested, the speculation in the right direction, the theory which shall guide the future. But here, again, all depends in the last resort upon the testing, which can seldom be applied directly. Let us take some examples. Kepler, the very father of modern science, was born in 1571, scarcely more than three hundred years ago, and died in 1630. Galileo was born in 1583, and died in 1642. Newton was born in the year of Galileo's death, and died in 1727, only a century and a half ago. Priestley was born in 1733, and died in 1804. Davy was born in 1778, and died in 1829. I cite these dates of men to whom I shall have to refer presently, to make you feel not only how ungrown, but how very young is modern knowledge.

Before the time of Kepler motion was entirely misunderstood. You have no doubt heard of the celebrated proof that motion does not exist,—a body must move where it is, or where it is not; it can do nothing where it is not, but if it remains where it is, it does not move; therefore there is no such thing as motion. You know also the refutation,—walking across the room. But you will have seen that this was no refutation, for the arguer that said a body did not move if it remained where it was, had already recognised motion. The refutation has to be sought in the incorrectness of the preceding assertions, which no one at that pre-Christian period dreamed of disputing. We need not stay to consider them, although they influence some people still so strongly that Newton could not conceive of action at a distance, and required an ether to connect the sun and the earth (which fortunately formed no part of his theory of gravitation,) and, to descend to very small matters, a clergyman contended with me some twenty years ago that mesmerism must be diabolic, because effects were produced without contact. But to Kepler, Galileo, and Newton, we owe the celebrated three laws of motion, on which depends everything that we know of motion and mechanics at the present day, about which therefore no one dreams of doubting, and against which even popes have proved to be powerless. But they are all guesses, not one of them can be proved or tested directly, and

the most violent opposition was made to the introduction of at least the first two. They have stood because of the overwhelming influence of the indirect tests, for which they were eminently adapted, for they were reduced by the three great men I have mentioned to forms suited for accurate calculation, and the results of those calculations have always agreed with the assumptions or guesses on which they were founded.

Let us take the first, or Kepler's law: "a body at rest will continue at rest, and a body in motion will continue to move uniformly forward in the same straight line unless it is acted upon by some external force." Now we might be quite ready to agree to the part relating to remaining at rest, for with that we seem to be perfectly well acquainted, and yet it happens to be the very point which most eludes us, for we really are not acquainted with anything which is at rest. The bricks in these walls are perhaps thought to be at rest, but the real fact is that they are all moving in the same direction, and with the same enormous velocity, spinning round with the earth, and round the sun, and through space in conjunction with all the rest of us. If we throw a ball on an unrolled piece of macadamisation it hops about in all manner of ways, and soon stops; if on a skating rink it goes on tolerably straight for some time. But that it would go on for ever, and that its direction would be straight, and that it would always pass over the same distance in

the same time, if we only made the path smooth enough, who can test? Yet it was by the gradual approach towards this uniformity and continuity, obtained by smoothing the path and rounding the ball, that Kepler was led to the guess.

But there is another point involved, which may be readily overlooked, and yet is really the foundation of all the rest, and that is that the only reason why it does not go on moving for ever is "some external force." What becomes of two floating magnets which run together? Where's the external force? What becomes of the crawling insect, or the bounding deer? Are not they bodies, too? but what is the "external force" which moves them? Practically the mistakes that are commonly made about internal and external forces have a very disastrous effect upon some of our highest thoughts, or I should not have troubled you with such inquiries. This law has sometimes been called the law of inertia or inactivity, because it assumes that matter is inert, or cannot move itself, and this is so deeply seated as a conviction, as a statement of what really occurs in nature, that an external force, which is not matter, that is, which is immaterial, has been postulated in order to move the matter,—how, has not been exactly stated,—and has been made the foundation of innumerable other theories. But the real light in which this law has to be regarded when viewed as a statement of what happens in nature, is

altogether different. Look at a railway train in motion. You all know that the locomotive moves itself, and drags the carriages after it, and also that all of them move as fast as the locomotive. So far, then, as the mere motion is concerned, it is perfectly indifferent whether the part of the train we consider is the locomotive or one of the carriages. We might even suppose, so far as the mere motion is concerned, that the locomotive itself was a sham, and was really tugged along by some immaterial external spirit contrivance, such as that which is supposed to have transported Mrs. Guppy for three miles, before the ink could dry in her pen, according to eleven witnesses. Herein lies the meaning of this part of Kepler's law, which is a mere contrivance to facilitate calculation by substituting external for internal tendencies to move. In point of fact we calculate as if strings were attached, passing over pulleys, and bearing weights at the other end, and by this means alone are we able to perform the calculation. If this were all, then, Kepler's law itself might appear to be a sham, but it is very far from that; it is not a law of inactivity, it is a law of the persistance of activity, and, as such, contains the germs of the recent law of the conservation of energy. But this is a matter which cannot be pursued in an illustration.

Let me turn to another example, where the testing is direct, and which I condense by memory from a

recent address on "Culture," by Professor Cooper, of Harvard. I drew your attention to the dates of Priestley and Davy. In 1774, just a century ago, Priestley discovered oxygen, or, as he termed it, "dephlogisticated air," that is, air deprived of its "phlogiston," or burning principle, and thus founded modern chemistry. After his time it had been discovered that if a volume of oxygen was mixed with twice as large a volume of hydrogen and a light was applied, there was an explosion, and a quantity of water was formed which weighed exactly the same as the quantities of the two gases. Davy, in 1807, three years after Priestley's death, discovered the means of separating substances by the galvanic current, and he naturally guessed that if he applied his process to water he would recover from it oxygen and hydrogen and nothing else. Well, he tried, and got the two gases he expected, but he also got something else which he did not expect, namely, an acid and an alkali. He had used an animal membrane in his experiments, and on making them without it he found the acid and alkali diminish, but still to be very marked. Then he suspected the water. He had taken the precaution to distil it, but he found on evaporating a quart that it contained seven-eights of a grain of solid matter, and on adding this to another quart, the amount of acid and alkali produced was increased. Feeling that he was now on the right track, he distilled his water over

and over again till he got no deposit on evaporation. The acid and alkali were materially diminished, but still there. Then he suspected his glass vessels, and tried agate and lastly pure gold, but without getting rid of his troublesome acid and alkali. But they were much less in quantity, and were now for the first time, pure nitric acid and ammonia, the former of which consists of oxygen and nitrogen, and the latter of hydrogen and nitrogen. Now the oxygen and hydrogen clearly came from the water, but where did the nitrogen come from? The atmospheric air, of course, he guessed, as four-fifths of it consists of nitrogen. So he put his apparatus under a receiver, exhausted the air, and—still found traces, only traces now, of his acid and alkali. But, as he remembered, it is impossible perfectly to exhaust a receiver, so he refilled it with hydrogen, which mixed with the very small quantity of atmospheric air left in the receiver, and largely diluted it. Then he exhausted the receiver again, and refilled it with hydrogen, and repeated the process many times till he felt sure that the quantity of nitrogen that could be left was inappreciable. Once more he tried his experiment, and was rewarded by getting pure oxygen and hydrogen without the minutest trace of acid and alkali. This is what we mean by directly testing a speculation, this is what we mean by calling true the assertion, that pure water will yield oxygen and hydrogen and nothing else.

Now these remarks and illustrations are a mere introduction to the main topic of my discourse to-day. They have, indeed, occupied considerable time, which will oblige me materially to condense my further remarks, but an explanation of the method pursued in testing verifiable hypotheses was nedeed for a just appreciation of those unverifiable hypotheses on which we have now to enter. The three great speculations which have necessarily principal interest for those who come here on Sunday morning, are the immortality of the soul, the existence of God, and the efficacy of prayer. On some of these three speculations depend all the great religions of the world. They are to a certain extent independent of each other, for we find Buddhism admitting a practical immortality of the soul, and assuming the efficacy of prayer, but not the existence of a god. On the other hand the older Jewish religion admitted the existence of a local god, Jehovah, and perhaps of many local gods of other tribes, together with the efficacy of prayer as offered up with sacrifice, but did not admit the immortality of the soul, so that even at a later period the Pharisee could dispute with the Sadducee over the matter. The order in which they have been named may appear singular, but I am inclined to agree with Mr. Herbert Spencer in putting the immortality of the soul first in order of historical development, and making both of the other two speculations subordinate to it.

Now, first, I would draw your attention to the fact that though I treat all these three great subjects as speculations, and in that respect put them on a par with the fundamental speculation of the uniformity of nature, the greater number of those who hold them, do not look upon them as speculations at all, but as mere truths which are the foundations of all other truths, which come home to their mind and heart at once with an overwhelming conviction no argument can assail and no doubt disturb, and which it is mere paltering, if not something worse, to put upon the same level as the dull, dry, philosophic uniformity of nature. And it is certainly correct to say that these speculations have not come to us who now live, in the guise of speculations, because we never guessed about them at all; we were told they were true by those whom we trusted, and who told us many things that we accepted with the same faith, although we were quite unable to test them. For example, probably every one here present, probably every child who has reached the age of twelve and been to a decent school, in any part, at least of the protestant world, believes firmly that the earth moves round the sun once a year. But it is palpable that by far the great majority of us take it on trust. I do, for one, because I am quite unable to make the observations, even if I had ready access to the proper instruments, by which alone the fact can be established. Fortunately my

university studies informed me what the required observations were, and hence I am in a better position than the very large number who have not had such advantages, to appreciate the force of the deduction from those delicate observations on what is known as "the aberration of light," discovered by Bradley in 1727, and causing a fixed star in the zenith to continually shift its apparent place in the course of a year, to an amount not much exceeding, on the whole, the hundred and eightieth part of a degree, that is, about the ninety-seventh part of the sun's apparent diameter. This small displacement which can only be observed by special instruments, can be accounted for by the relative velocity of light and of the earth in its orbit, and is the only visible phenomenon in the heavens which cannot be explained without supposing the earth to have an annual motion round the sun. Science, you see, does not exclude faith.

Again, among the persons with whom originated the three great speculations just named, it is highly probable that they had not the least appearance of speculations, but, on the contrary, were accepted on the same sort of evidence as that which we now deem sufficient in ordinary life, when we say that we see or hear something. True, instances may be adduced which may serve to shew us that we did not see and hear what we thought we did. Thus when I was six years old, I saw a cook cut off a duck's head, which

slid down the gutter crying quack ! quack ! all the way. I heard this so distinctly that the whole scene and sound comes vividly before me this moment. I know of course that I made a mistake. But I have been often extremely glad that I made it, because it has made me practically acquainted with the sensations under which miracles are witnessed and attested with the most unhesitating faith, and without any external deception. We cannot, of course, put back the clock of time, and make the acquaintance of the first speculator at the moment of speculation ; but there are plenty of rude nations still existent, and records of others which have disappeared, and by a careful examination of these records, thoroughly searched and systematically tabulated, in a series of tables of which a few have been already published, made under the direction of Mr. Herbert Spencer, to form the historical groundwork of his great treatise on Sociology now in progress (may he have life and strength to complete it !), this great thinker has, I conceive, succeeded in tracing out the circumstances under which these three speculations arose, that have gained such an ascendancy over civilised men. It seems indeed a small peg on which to hang a great discovery, that every man is accompanied by two doubles, the shadow thrown by the sun, and the reflection cast by the water. But from these simple observations, utterly inexplicable to the uncultivated

mind, depending indeed on natural relations not yet thoroughly understood, though their geometrical laws are well known, may have arisen, very possibly did arise, the germ of those notions which have expanded into these three great speculations. How this becomes probable, what were some of the successive stages of the development as deduced from utterly independent records, must be sought in the writings of Mr. Herbert Spencer, now in progress. It is not my present wish to enter on the genesis of these speculations, but to regard them in a totally different manner.

Make the rather difficult supposition, that the civilised world is in possession of all its present knowledge, but has no traditions of religion. John Stuart Mill approached somewhat to this condition. At any rate, he had been brought up without any religious convictions. But then he had not been brought up scientifically. Although he was not surrounded by beliefs which involved these speculations, he was surrounded by plenty of philosophical notions and systems, from which, I think, he never shook himself perfectly free. Still he was put in a better position than most men to judge of these speculations as speculations, and not as the outcome of hereditary belief. This is the point from which they must now be regarded. They have come into serious collision with science, at least in some of their ramifications, and it becomes necessary for science to inquire how far they

are admissible and how far their clashing with science depends upon their nature or upon the interpretations —often antagonistic in themselves—which their expounders put upon them. No complete examination of these three speculations could be made even within the limits of one discourse for each, and hence I must be content with a few indications.

We commence with the immortality of the soul. Immortality, as implying the absence of death, may be tolerably understood, although neither mortality nor immortality are properly conceivable except for organised beings. When a leaden ball is let drop from a height on to a hard floor, its motion is immediately stopped. What becomes of that motion? The floor is put into vibration communicated far and wide, the vibrations of the lead are not perceptible, but it gains a sensible and measurable amount of heat. The motion of the ball has therefore not been lost, it has been merely transferred and transformed. Now life in an organised being is a series of such motions, stimulated by food, and death is the absence of such motions, so that, the stimulus of food being absent, certain other actions, before subordinate, become principal, and the organism is resolved into inorganic elements, which may or may not become portions of organic new structures under well known conditions, but have always the aggregate weight of the whole original organism. This applies to plants as well as

animals. Generally the organisation is first accomplished in plants and then transferred to some animals, and afterwards to other animals in a long succession. The notion of death, then, does not apply to these inorganic elements; but seems simply to apply to the breaking up of some of their peculiar, and, as we now know, extremely complex combinations. To account for this organic formation recourse was had, on the principle of the law of inactivity, already spoken of, to an external force, called vitality, in virtue of which it took place. This vitality is now universally admitted to be a pure fiction, which in no way assists us in explaining the phenomenon. We have found that we can get on better without it than with it, although we are then obliged to regard life, like electricity, as a mass of phenomena, presenting strong marks of resemblance, of which we do not know the essential character. We may still speak of life as we speak of electricity, just as if it were a living external being that does this that and the other, provided that we remain conscious that we know nothing of life beyond living things. But the soul is quite another affair. This is not conceived in the same way as plant life. We recognise in the lower animals a vegetable life and an animal life, that is two systems of phenomena, distinguished by two different sets of agents; but those who assert the immortality of the soul, deny souls to the lower animals. This, of course, is in the higher

form of the speculation. But then the question arises, what is this soul which exists in man and not in other animals? and it is a question which has not yet been answered except by an assertion of its immortality, which is the very proposition under examination.

Now two living writers, who have not announced their names, but who, if rightly designated by common report, are both profound and clear thinking men of science, calling themselves Christians, have lately published an argument contained in their well known book called "The Unseen Universe," by which they endeavour to infer, or at least render probable, the continuance of life in the thinking, recollecting, and even personal form from a principle dependent upon considerations similar to those which occurred in the case of the checked motion of a lead ball, just referred to. Life goes on to a certain point. There is a series of motions having certain energy. Life ceases, what becomes of that energy? We cannot suppose it to be lost. It must be converted into an equivalent of something else, and that something else is the recollecting immortal soul. The reasoning up to the time of the conversion of the energy will carry every one with it. But beyond this all is speculation. "We are led to believe," say the authors, "that there exists now an invisible order of things intimately connected with the present and capable of acting energetically upon it." (3rd edition, p. 158.) The

circumstances which induced the writers to form this belief are thus stated in a passage which they here refer to: "We do not hesitate to assert that the visible universe must, *certainly in transformable energy, and probably in matter*, [the italics are in the original,] come to an end. We cannot escape from this conclusion. But the principle of Continuity upon which all such arguments are based still demanding a continuance of the universe, we are forced to believe that there is something beyond that which is visible," (p. 64.) After this primary hypothesis the writers proceed as follows to state the fundamental assumption on which their arguments rest: "Let us therefore begin by supposing that we possess a frame, or the rudiments of a frame, connecting us with the invisible universe, which we may call the spiritual body," (ib. p. 159.) Observe that they have here adopted the authorised translation of Paul's expression of a pneumatic as distinguished from a psychic body (i. Cor. xv. 44,) the first being translated "spiritual" and the latter "natural." And in another place they lay stress, almost like theologians, on the use of the present instead of the future tense in this passage, remarking, "*There is*," says the Apostle, (observe, not *there shall be*), a spiritual body," (ib. pp. 162-3,). Whereas, anyone who reads to discover what Paul thought, instead of what confirmation for modern theories, undreamed of by him, could be squeezed out

of his words, can see that Paul was merely asserting the reality of the two bodies, and not their simultaneous existence for each individual. But to continue the exposition of these two writers: "Each thought that we think, is accompanied by certain molecular motions and displacements in the brain, and part of these, let us allow, are in some way stored up in that organ, so as to produce what may be termed our material or physical memory," (ib. p. 159) where observe that this conception of the generation of ordinary memory may be almost considered as adopted, and the separation of stored up energy into parts in its transformation is familiar; thus, in the case of the lead ball part of its motion was transferred to the floor and part converted into heat. The writers go on as follows to account for the rest of this energy without, however, first ascertaining whether the whole has not been accounted for by memory and action: "Other parts of these motions are, however, communicated to the spiritual or invisible body, and are there stored up, forming a memory which may be made use of when that body is free to exercise its functions," (ib.) and this free time is specified as after the decease of the material body, because, they say, that "one of the arguments which proves" (let us say at most, renders not inadmissible) "the existence of the invisible universe demands that it shall be full of energy when the pre-

sent universe is defunct," (ib.) that is, that it should have stored up vital energy, as coals have stored up solar heat, ready to give it off on the action of proper stimuli. "We can, therefore, very well imagine," the authors proceed to say, and I call your attention to the word *imagine*, "that after death, when the spiritual body is free to exercise its functions, it may be replete with energy, and have eminently the power of action in the present, retaining also, as we have shown above, a hold upon the past, inasmuch as the memory of past events has been stored up in it, and thus preserving the two essential requisites of a continuous intelligent existence," (ib. pp. 159-160) which conditions are stated in a passage here cited to be "a connection with the past," and "the possibility of action in the present." (ib. p. 52.) And in this way the authors develop their celebrated thesis that "Thought conceived to affect the matter of another universe simultaneously with this may explain a future state." (ib. p. 159.) In the two passages here quoted is contained the whole of the work, the rest is mere explanation and the exposition of analogies, which led the writers to what they have rightly styled, in the words already cited, something which they can "very well imagine."

But, even given the unseen universe to store up the energy of thought, it is difficult to see the slightest ground, except the speculations forced on Paul in his seventeen years of solitary meditation upon the

obscurely known events which preceded his conversion (Gal. i.), for *localising* that energy in a distinctly separate and simultaneously existing "spiritual body," and leaving it there dormant during the whole of life, to be immediately exercised by loosening a detent, as it were, in the process of dying. It is difficult to understand how simply ceasing to store energy should convert it from the dormant into the active state. There is nothing like that in the visible universe. But even admitting this conception, no guarantee is indicated for the endlessness of this spiritual body, which could only store up its own dissipated energy, either in spiritual bodies of a second order, or possibly, in the "natural bodies" of the visible universe, so that one of the outcomes of such a theory might be the old, old thought of the transmigration of souls. These are some of the difficulties which immediately occur to the mind when the statement of the bare theory is dug out of the wonderful accumulation of scientific detail, mixed up with religion, spoken of as general, but clearly identified with a peculiar view of Christianity, with which the book abounds. But another dfficulty is, that we have as yet no measurement of the energy of thought sufficient to make us deny that its transformation cannot be all accounted for in the visible universe. It is not merely in forming memory that vital energy is used up, but in disposing to action, in combining memories for individual trains of thought, and

in the influence which each individual's thought exercises over the thoughts of others. Is there no expenditure of vital energy at this moment, when I am endeavouring to transform my own thoughts, the slow and gradual growth or storage of more than half a century's experience, meditation and work, into yours? Is not every thoughtful book that has been written a storehouse of vital energy, which is consumed by the readers? And could not much be said for that visible immortality, the only immortality recognised, and at the same time fully appreciated by Auguste Comte, by which every mind lives in every other mind with which it is brought in contact, and is thus indefinitely diffused and extended as long as mind endures?

Still, this theory of cosmic transformation, as it may be termed, may serve to lead thought on a new path. It bears with it one essential mark of a legitimate speculation, it does not override known laws, but issues from them, although it is full of arbitrary suppositions which have no analogue in things known. We may, indeed, "very well imagine," to use the words of the authors in introducing the hypothesis, that some means of testing may hereafter arise, provided that we are ever in a condition to measure the mutual action and reaction of the visible and invisible portion of the one cosmos. The old analogies and metaphors by which the possibility of a future life was sought to be established were mere mistakes, and need not be con-

sidered. The objection to the usual theories is that they cannot be tested. There is no harm done in entertaining them, provided we do not mix up with them conceptions antagonistic to known laws, and provided that, however much we cherish them for our own gratification, we do not use them as certain conclusions, having the same force as tested laws, but remember that they are simply untested, and as yet incapable of being tested, and hence are matters which have not yet been shown to be either possible or probable, and consequently cannot be, properly speaking, the subject of belief or disbelief. The assertion that we shall live elsewhere after death cannot be denied, but for the reasons just assigned should not be affirmed, and therefore should not be made the basis of any social action. Assuming it, however, as a speculation, we may speculate further, and the only step in that direction I can take, is that our imaginable Then will depend upon our actual Now, by a process precisely similar to that which goes on before our eyes in all successions of events. And from this feeling would flow all the good that can by any possibility result from such an hypothesis to the present moral action of man. Still as the immortality of the soul remains an extremely hazardous hypothesis, even after all that the writers of "the Unseen Universe" have advanced, morality would have small chance of success, if it were based on anything so

dubious. Not even a Christian doctor of divinity would venture to make the doctrine of future life the sole basis of an ethical system. As for metempsychosis and nirvâna, judgement, hell, purgatory, and paradise, and the whole arsenal of revivalism, they are either mere imaginations, which savour of rude conditions of thought, or else unmistakable transplantations of terrestrial conditions into superterrestrial habitats.

Quite different is it with the speculation concerning the existence of God. At every turn the man of science meets with a controlling externality, a condition irreversible, an order paramount. The uniformity of Nature is a mere expression of this feeling, and of its absolute permanent inherence in all cognisable phenomena. The belief in this uniformity has grown up with science quite independently of the mode in which the conception of gods arose from the observation of shadows. No man of science has the slightest doubt of the uniformity of Nature. The doubters and heretics here are the priests and popes of different religions, the ignorant that deem themselves wise, not the relatively wise, who, as I shewed by the example of Newton, know themselves to be ignorant. And then the man of science, too, speculates. Here, on earth, is everywhere a consensus, an agreement of parts to form a whole, an interpenetration of orders generating progress, a blending of what at first seems incongruous into one harmonious whole. The vulgar

call it design, and our language has followed the vulgar, but the man of science knows that to think of it as in the slightest degree resembling human design is high treason against even his own limited knowledge. Then he turns his eye from the world to the universe. The moon approaches the earth by the same law that a stone falls to the ground. The spectrum of the sunbeam reveals the existence in the sun of the same metals and gases that we know on earth; nay, the distant fixed stars, the cloudy nebulæ, and the fleecy comet shew the same. We watch the double stars, and find them circling round each other by the same law which regulates our solar planets. We are led irresistibly to conclude that the same consensus which we felt on earth reigns beyond the earth. We do not know it, we cannot test it further, we cannot measure it, weigh it, handle it, but we believe in it with faith unshakable. Everywhere throughout the universe thus runs the speculation of science, organic and inorganic, lifeless or living, vegetable or animal, intellectual or moral, on earth or in the unknown and unimaginable life in the glittering worlds we gaze at with awe and delight,—there is a Consensus of action, an Agreement, a Oneness,—transcending every human notion of individual personal life, with its puny determinable will, grand only as part of the grander,—transcending even the highest human notion of the social impersonal life of the race, which forms

the best earthly image of such a Cosmic Consensus,—far beyond all that we can think of as wisdom or power or love, petty terms which bring the high to the low without raising the low to the high,—and this One-ness is the God of Science. Oh! how it irks a man who suns himself in the glories of such a conception to descend to the petty notions of man-gods and god-men, elaborated from rudest savagery, built upon personal prowess and endowed with personal form, and all the personal passions which in the world form the very basis of society, but beyond the world, as the One Consensus of the Universe, would be hideous, if not ridiculous. And to be told that this is God, that this is to be prayed to, to be propitiated by sacrifice as a despot by bribes; that this is our sole hope in life or death, this, from whose shoulders, if an earthly judge's, we should strip the ermine in disgrace; that this sways the universe and will listen to entreaty and will alter the unchanging uniformities of the cosmos, because man goes down on his knees and screams for mercy, or cajoles for favour, or swims in ecstatic delirium. No, the third speculation is beyond me. It is so utterly irreconcilable with all I know and feel. It is so utterly in disagreement with all attempts at testing. It is so impossible to test, and so horrible to conceive. The cave where a notorious brigand was shot in Italy a few months since was full of images of saints. That man was constantly praying to his congenial ideal. That is the true prayer of theory. Practice has

made it something else where civilization has spread her arms ; but the best prayers are more ready to curse by word or implication than to bless. It must be so. It will be so till the time of ferment is passed. Both it, and the indignation it inspires, are conditions for the future on which we may speculate with serenity, thanks to the mental conquests of the last three hundred years. The geological changes of our planet are but foreshadowings of the intellectual and moral changes of man. The present phase will pass and leave its fossils, as the gods of Egypt, of Greece, of Rome, and of Yucatan, have left theirs. Who takes the trouble to deny these gods now? Who, in after ages, will take the trouble to deny the god-man of Christianity, whom. Christ knew not? The prayers now uttered in Christendom will be studied with the same curiosity as that with which Christians now look upon the traditions of the Assyrians when deciphered by George Smith, or the ritual of the Egyptians when translated by Samuel Birch. But the God of Science, the One Consensus of the All, the same yesterday, to-day and to-morrow, is independent of these changing forms which drop like the leaves in autumn, and the sole prayer of the man of science, and the man taught by science, which should include and will include the whole human race, is conscious communion in this Consensus, absolute devotion to Its elucidation, and supreme placid unshaken unhesitating trust in Its Everlasting Uniformities.

DISMISSAL.

Let us keep Man's Why apart from God's How. Man's Speculations are but a fringe of loose sand which shifts with every tide of thought; God's Uniformities are the boundless stable ocean itself. May we all live consciously, as we all live actually, in the presence of the never failing Unchangeable.

South Place Chapel.

WORKS TO BE OBTAINED IN THE LIBRARY.

BY MONCURE D. CONWAY, M.A.

	PRICE s.	d.
The Sacred Anthology: A Book of Ethnical Scriptures	10	0
The Earthward Pilgrimage	5	0
Republican Superstitions	2	6
David Frederick Strauss	0	3
John Stuart Mill	0	2
Sterling and Maurice	0	2
Mazzini	0	1
Intellectual Suicide	0	2
The First Love Again	0	2

W. J. FOX.

Memorial Edition of his Works. 12 Vols. published at 60s.	30	0

BY ALEXANDER J. ELLIS.

Salvation	0	2
Truth	0	2
Speculation	0	2
Duty	0	2

BY W. C. COUPLAND, M.A.

The Conduct of Life	0	2

BY FRANCIS W. NEWMAN.

The Service at South Place Chapel, Sunday, May 20th, 1860	0	3

BY HENRY N. BARNETT.

Religious Enthusiasm	0	3

Hymns and Anthems	3	0

DUTY:

A DISCOURSE

PRECEDED BY

SOCIABILITY:

A MEDITATION,

DELIVERED AT

SOUTH PLACE CHAPEL,

SUNDAY, 23RD JANUARY, 1876.

BY

ALEXANDER J. ELLIS,

B.A., F.R.S., F.S.A., F.C.P.S., F.C.P.,

Vice-President (formerly President) of the Philological Society, &c.

WITH

THE READINGS AND THE AUTHOR'S HYMNS USED ON THAT OCCASION.

The Third of a connected Series of Three Discourses delivered in the same Place and Month.

Price 2d.

ORDER OF THE SERVICE.

HYMN 319—

"Not for ever on thy knees."

Words adapted from WASHINGTON MOON. *Music after* WILKES.

READINGS—

I. Egyptian Negative Confession, as follows, p. 2.

II. William Ellis's Positive Morality of Common Sense, as follows, p. 4.

HYMN 393, as follows, p. 8.

MEDITATION, "Sociability," as follows, p. 9.

ANTHEM 347—

"I slept, and dreamed that life was Beauty,
I woke, and found that life was Duty."

Words by ELLEN HOOPER. *Music by* DE LACY.

DISCOURSE, "Duty," as follows, p. 13.

HYMN 235, as follows, p. 38.

DISMISSAL, as follows, p. 39.

READINGS.

I.—THE EGYPTIAN NEGATIVE CONFESSION.

Extracted from the 125th Chapter of the Egyptian "Funereal Ritual," as contained in the Turin Papyrus, edited by Professor R. Lepsius, of Berlin (under the name of "Das Todtenbuch der Aegypter," 1842), and translated by Dr. Samuel Birch, of the British Museum, in "Egypt's Place in Universal History," by the late Baron Bunsen, vol. V., 1867, p. 252.

THE oldest papyri containing the Egyptian "Funereal Ritual" or "Book of the Dead," belong to the 18th Dynasty of Egyptian Pharaohs, which is supposed to belong to the period of the bondage of the people of Israel in Egypt. The 125th chapter is the one most frequently repeated on the coffins and other monuments of the 19th dynasty of the Pharaohs, which is usually taken to have reigned in Egypt at the time of the Exodus of the Israelites. It is entitled in the original hieroglyphics: "The book of Going to the Hall of the Two Truths, and of separating a Person from his Sins, when he had been made to see the Faces of the Gods." The dead person is admitted with many ceremonies into the hall of the Two Truths, where his heart is weighed in the balance, and the result is registered by Thoth in presence of the God Osiris. Around and above him are the 42 Gods. All this is represented in a drawing, parts of which may be seen in the British Museum, on the walls of the staircase leading from the lower to the upper Egyptian room. The dead man justifies himself by making a negative confession before the Two Truths, in general terms, and then by expressly denying each of 42 especial sins to each of the 42 Gods in turn, addressed by name, in separate invocations. The following is a portion of the general negative confession sufficient to shew that it is in character essentially the same as the second table of the Mosaic decalogue, which did not exist till many years afterwards.

"Oh ye Lords of Truth! Oh thou Great God, Lord of Truth! I have come to thee, my Lord. I have brought myself to see thy blessings. I have known thee. I have known thy name. . . . Placer of Spirits, Lord of Truth, is thy name. Oh ye Lords of Truth! let me know you. I have brought you truth. Rub ye away my faults.

"I have not privily done evil against mankind. I have not afflicted persons or men. I have not told falsehoods in the tribunal of Truth. I have had no acquaintance with evil. I have not done any wicked thing. I have not made the labouring man do more than his task daily. . . . I have not been idle. I have not failed. I have not ceased. I have not been weak. I have not done what is hateful to the Gods. I have not calumniated the slave to his master. I have not sacrified. I have not made to weep. I have not murdered. I have not given orders to smite a person privily. I have not done fraud to men. I have not changed the measures of the country. I have not injured the images of the Gods. I have not taken scraps of the bandages of the dead. I have not committed adultery. I have not spat against the priest of the God of my country (?). . . . I have not cheated in the weight of the balance. I have not withheld milk from mouths of sucklings. I have not hunted wild animals in their pasturages. I have not netted sacred birds. I have not caught the fish which typify them. I have not stopped running water. I have not separated the water from its current. I have not put out a light at its hour. I have not robbed the Gods of their offered haunches. I have not turned away the cattle of the Gods. I have not stopped a God from his manifestation. I am pure! I am pure! I am pure! I am pure! I am pure!"

2.—THE POSITIVE MORALITY OF COMMON SENSE.

Extracted with very numerous omissions for the sake of brevity only, but with no insertions, from William Ellis's,

"What am I? Where am I? What ought I to do? How

am I to become qualified and disposed to do what I ought?" 1852, pp. 35—49.

"What ought I to do, in order to make my existence as happy as possible?"

I must work; because food, clothing, fuel and shelter, cannot otherwise be had, and happiness is impossible without them.

I must work skilfully; because unskilful work will fail to supply the necessaries and comforts of life in the requisite quantity, and of the requisite quality.

I must work skilfully under the guidance of knowledge; because work however skilful, conducted without attention to place and season, to the conditions of mechanical, chemical, electrical, and vital agencies, will either be altogether without fruit, or productive of much less than what is needful for well-being.

I must refrain from consuming the fruits of my labour as fast as I produce them; because, in most parts of the earth, there is only one principal harvest each year, and the plentifulness of this harvest is uncertain; because I cannot work while suffering from sickness, and enfeebled by old age. Besides, a great space of time is requisite to bring to completion most of the products of industry, during which time the products of former industry cannot be dispensed with.

I must combine with other industrious, skilful, and well-informed men for protection against those who would snatch from us, whether by violence or fraud, what we have earned and saved; because it is found that, although all men are anxious to enjoy the necessaries and comforts of life, some will not work for them. If it were impossible to resist successfully those who would maintain themselves by plunder, not only would the means of subsistence be taken away from the persons who had earned them, but the persons so plundered would be left without inducement to earn more.

I must work honestly and truthfully—in other words, I must scrupulously fulfil all my engagements; because it is found to be

most conducive to the productiveness of industry and to the convenience and happiness of society, that men should enter into contracts and agreements with one another ; and the willingness to enter into such agreements, and the benefit to be derived from them, must depend upon the fidelity with which they are performed. The harmonious co-operation of masters and servants, of capitalists and labourers, evidently tends to increase the productiveness of their joint labour by apportioning to each that part of the work for which he is best qualified, and by distributing what is produced, so that the share of each is somewhat in proportion to his success. And for this harmonious co-operation, mutual confidence, based upon the pervading feeling that engagements are intended to be faithfully performed, is indispensable.

I must behave courteously, considerately, and obligingly, because the claims of health, of recreation, and of kindred, require indulgence to prevent their clashing with the claims of industry.

I must conduct myself benevolently, gratefully, generously, because all industrial proceedings are disturbed by casualties which can neither be guarded against nor relieved by fidelity in fulfilling engagements.

I must be temperate in satisfying my appetites, and in the enjoyment of the pleasures that attend upon their satisfaction ; because intemperance undermines health, incapacitates for self-control, and destroys industrial power.

In order to secure anything approaching to well-being, there can, then, be no question, whatever further may be needful, that men must possess certain qualifications. Among them must be found skill, knowledge, economy, respect for person and property, trustworthiness, kindliness, gratitude, courage, forbearance and sobriety. Nevertheless it is quite incontestable that these qualifications are by no means universal. It is equally true that well-being is also far from universal.

" How am I to become qualified and disposed to do what I ought ?"

At birth I neither know nor care how I ought to conduct myself; nor do I learn for a certainty as I grow up that of which I am originally ignorant. The fact that for thousands of years men have continued to grow up in ignorance of many of the most useful qualities and applications of the substances with which they are surrounded, is a sufficient confirmation of the truth of this statement.

In order that I should become qualified and disposed to do what I ought, I must have the opportunity afforded me of acquiring knowledge, and with the knowledge the readiness to practise what knowledge recommends. This opportunity can come to me from only one quarter—from the persons who possess the knowledge, the wealth and the power already acquired--from the adult guardians of infancy and childhood. They must teach, or I shall not learn. They must direct and train, or I shall not be well disposed.

What, then, are the means available to mankind for the performance of the duty of adults towards the young? and which is the most judicious application of these means? Clearly, these means must be the result of adult labour, knowledge and economy. Let these adult qualifiactions vanish, and the means of educating the young vanish with them. The supply of these means must be proportioned to the extent of the work to be executed; and the due proportion and distribution of them can only be provided by parental forethought. It is alike cowardly and imbecile, while contemplating the deplorable lack of parental forethought in bygone times, and even yet prevailing in all parts of the earth, to ignore the fact,—to be for ever drivelling and whining over the consequences of parental neglect, and never making any well-directed effort to remove the parental neglect itself, the cause of those consequences.

HYMN 339.

Words by A. J. ELLIS. *Music by* MENDELSSOHN.

Go, my child, thus saith the Highest,*
Warning, cheering, day by day,—
Go, my child, and as thou triest
Life's temptations, bravely say;
Do thy duty, tide what may! †

Faint not! yield not! 'tis no sadness
Burdens thee on life's true way;
Duty done is heartfelt gladness,
Cheering as the summer ray;
Do thy duty, tide what may!

When a cloud obscures the heaven,
Know the sun will bring thee day;
When to grief thy soul is given,
Trust my love will ever stay:
Do thy duty, tide what may!

All the trials that surround thee
Are but stones to mark thy way;
Nought will baffle or confound thee
Canst thou love and bravely say:
Do thy duty, tide what may!

---

* By this term is meant "the Highest" *earthly being*, Humanity, speaking by the mouth and loving with the heart of the wise and good, at all times and in all places.

† The last line in each stanza is a translation of the old French knightly motto, much insisted on by Auguste Comte:

Fais ce que dois, advienne que pourra.

SOCIABILITY.

A MEDITATION.

The second Mosaic legend of creation makes Jehovah Elohim, which is Englished as "the Lord God," reflect that "it is not good that man should be alone," and determine "to make him a help as it were before him;" (Gen. ii. 18; this is the marginal reading in the Authorised Version, and more exactly renders the original, than "an help meet for him," which is adopted in the text.) And this he effects, as is well known, by removing a rib from the first man when asleep and "building a woman" out of it, as a mason builds a house of stones (Gen. ii. 22; for this is the full and usual sense of the word employed, and is given in the margin of the Authorised Version.) According to this view, which is still widely accepted, human sociability was an afterthought, woman was a supplement, a "help," made to stand "as it were before" man as a servant before a master, by no means an equal, and "built" out of a very secondary

portion of man's body. But what is more extraordinary still, the whole possibility of a human race was on this view not part of the design of creation, and, strictly carrying out this conception, the first child becomes a curse to his parents, and is not born till after paradise has been forfeited, (Gen. iv. 1.) Yet the whole of Christianity as developed by Paul, turns upon the implicit acceptance of this second legend and its consequences.

The first legend of creation took a far nobler and higher view when it made God fashion man "in his own image," male and female at once, and gave man, in this double unity, the function of fertility, "to replenish the earth and subdue it," (Gen. i. 26-28,) and this nobler view has of late years been reviving in man's heart. Man is sociable, man is both male and female, man replenishes and subdues the earth, man is God's image on earth, and God's voice, the only voice of God which reaches man, is the collective wisdom of humanity. All we have to guard against in accepting this older view, (besides the mere mechanical framing in which the legend is set,) is the danger of projecting the image of God on earth back into the skies, and hence of incalculably lowering the conception which we are gradually reaching of the One Great Consensus of the All.

Man is sociable. This is the one great truth in which we may rest. Every organ of his body, every

thought and desire of his head and heart, functions towards one great end,—sociability. The absolute oneness of interest between the male and female, by whose joint action alone the continuance of life and the improvement of race become possible, is a mere truism of sociability. In this great view distinctions of sex become simply distinctions of function and are merged in the great bond of followship in being. How tame, how bald, how unreal read the Christian representations of new Jerusalems with the Lamb and the Elders, the Hosannas and the Choruses, which we feel tempted to supplement with the usual roseate light of stage glorification; or the Moslem Paradise of merely male sensuality; or the dreams of a perpetual dreamlessness in nirvâna; when we contrast them with the daily and hourly blessings of sociability whence flow all our joys and all our motives!

Social virtue! Social worth!
Fairest of the things of earth!
Greeting man from mother's womb,
Weaving garlands o'er his tomb,
Stretching out a parent's arms,
Shielding helpless youth from harms,
Watching o'er his wakening hour,
Training up each growing power!
Round the man, with love unchanging,
Helpmates, friends and brothers ranging;
All thy joy in others finding!
Man and wife together binding

With an ever strengthening chain,
Heightening joy and dwarfing pain!
On their breast the infant laying,
Holiest love with love repaying!
Home to home at once connecting,
All delighting, all protecting,
Till the ample city's round,
In a knot of love is bound!
Still thy magic wider flinging,
Cities close to cities bringing,
Till thine unresisted hand
Rules the happy fatherland!
Still thy efforts never slacking,
Obstacles at nothing racking,
Till within thy fond embrace
Nestle all the human race,
None of all thy children lacking!
Social virtue, social worth,
Fairest of the things of earth!

As thy glorious law unfolds,
Man his history beholds,
Learns to comprehend his birth,
Grasps his purpose on the earth,
Welcomes every man as brother
Issue of a common mother,
Self, reflected in another!
Everywhere beneath the sun,
Now, and since his time begun,
Now, and till his time is run,
Man is one.*

* These words form Hymn No. 251 (with some corrections,) the words by A. J. Ellis, not yet set to music.

DUTY.

In my two last discourses I endeavoured to shew how we know things to be true, and how we should speculate to obtain knowledge. Speculation altogether unfounded upon truth, that is, upon verified propositions, or opposed to the clear deductions from such propositions, is at best waste of thought. Little better can be said of speculation which though founded upon truthful analogies, and hence continuing as it were verifiable researches, strikes into regions where verification is impossible at present, or is at best extremely precarious for any distant future, and, so far as we can judge will ever remain unattainable. An example of such speculations is furnished by the extremely ingenious hypothesis contained in that remarkable book called "The Unseen Universe," which I considered in my last discourse. But it is too mild a term to use for any such speculations to say that they are ingenious, or, as in the former two cases, mere waste of thought, when they are quietly

assumed as verities, and made the foundation of practices and even ordinances affecting the action of man towards man. When we trace up a whole series of precepts and regulations, admitted or enforced within any country or society, and find them culminate in some assertions made by an individual, or even merely ascribed to some real or mythical individual without an approach to the strict evidence which any one of our judges would require in deciding on a case of petty larceny, we should feel inclined to laugh at the absurdity, were it not that we are brought face to face with one of the great tragedies of life. These beliefs, these practices, this malversation of feeling, are not to be refuted, because they rest upon no intelligible propositions. They did not arise intellectually, and they cannot be subverted intellectually. They are plants firmly rooted in the soil of human feelings, and can only be killed off by planting other and more vigorous growths beside them, which will gradually but inevitably deprive the others of all nourishment, and shoot up the statelier from their ashes.

"Nought is effaced,
But what is replaced!"*

---

* "On ne détruit que ce qu'on remplace," an aphorism of Napoleon III, before becoming emperor, characterised by Auguste Comte in 1852, as "la plus profonde sentence du dix-neuvième siècle."

Every old weed that you root up leaves a bald patch which grieves the eye and heart. Sow the seed of truth, and natural selection will do the rest.

The uniformity of nature is about the last thing at present taught in schools. Much more attention is bestowed on irregular verbs. If the teacher only remembers how little the best thinkers have yet succeeded in tracing the uniformity of which this particular diversity in the forms of verbs is merely one of the secondary phases, he will see how very much better adapted is such a study to confuse than to enlighten the mind of a child on the subject of uniformity. Absurdities culminate in such phrases as, "there is no rule without an exception," and "that is the exception which proves the rule." Language is one of the most difficult subjects which can engage human thought. We are at present but digging at the approaches. We are not in view of the citadel to be stormed. And yet language is made the principal study of childhood! To think clearly should be the great object of instruction; clear thoughts find expression in clear language; the laws of language and the laws of thought which they mirror or distort, are subjects for the philosopher not the student. But every circumstance in school life, every little incident in a child's usual actions, his running, his dodging, his throwing his ball, his fair play, his cheating, his behaviour to his parents, his master and his comrades,

every thing that he sees and from which he infers consequences, all these form excellent means in the hands of one who himself thinks clearly, to make the child think clearly and feel that in every case he has been led by his knowledge of the uniformities of nature, so far as it went, and make him long to push that knowledge further. Of course this has all to be done indirectly, by leading and training, not by precept.* But this is the one single foundation on which we can build securely, and sad is the condition of that teacher who is bound to cross his teaching by the precepts of denominationalism,—a terrible word, of which I gladly avail myself to avoid recognising as precepts of religion, assertions which I regard as essentially irreligious.

The principle of uniformity has to be strengthened by two others, to which it was not necessary to allude in my previous discourses. They are both involved in the very common act of shaking a friend by the

---

* The principles and practical details of the mode of training here proposed, are contained in a lecture which I delivered before the College of Preceptors on 12 Feb., 1873: "On School Inductions; or, how to familiarise School Children with the Principles of Inductive Logic," (Hodgson, 1, Gough Square, Fleet Street,) which also will be found to contain a development of many points mooted in my two first discourses on Truth and Speculation. A few copies have been placed in the library of South-Place Chapel, on sale for the benefit of the Chapel.

hand, and saying: how do you do? We should not stretch out our hand to grasp his, if we did not believe that there was a hand to grasp, that is, a something external to ourselves determining our sensations, of which alone, as philosophers have shewn, we are really conscious. This external projection of our sensations is the first thing here involved, and I shall not tread the very thorny metaphysical path which it opens out, but merely warn you that it by no means always follows that we are right in our projection, (as for example in the case of Macbeth's dagger,) and that the ascertainment of our correctness, that is, the verification of the hypothesis we form of such externality, though usually quite superfluous, is occasionally extremely difficult. It follows that we must not suppose, as several eager arguers in the speculative school have in fact, though not in words, frequently assumed, that whatever we imagine really exists. Heaven would not hold such a pantheon as could thus be created!

The next point involved in putting the usual question to our friend, is that there is an intelligence similar to our own, that can understand and reply to the question. We should not put the question to a picture, or a waxen image. We own the existence of a fellow to ourself, and our first impression may be, in that earliest babihood during which intelligence unfolds, that it is in all respects our fellow or match. We soon learn to discriminate points of resemblance

and points of difference, and we come finally to conceive each such separate existence as having certain properties in common, forming its animality or manhood, and others peculiar to itself, forming its idiosyncracy or character. We thus acquire two conceptions, which fire could not burn, or words cajole out of us,—that each of us is one of a community subject to general uniformities, and also that each one is subject to his own peculiar uniformity. That is, we obtain a conception of the spread of the principle of uniformity over all sentient beings.

Now although we never find any single human being who does not act on this principle even when storming against it in words, yet it is *the* principle which is of all others at present least admitted in theory. It is absolutely and diametrically opposed to all the principles of denominationalism,—you must allow me to use this word—in all countries and in all time. But it is the principle always steadily kept in view by law-givers, whose codes are formed upon more or less superficial or thorough-going deductions from human uniformities, and it is the only principle on which the mutual actions of human beings can be in the remotest degree understood. If some of the great uniformities which regulate the life of individual and collective man were no better understood than those which regulate the recurrence of weather, society would be a simple chaos. If every man could do

what seemed best to him in his own eyes, in the metaphysical sense of acting without motive, so that we should never know whether to expect a kiss or a blow, social life would be impossible. But we live in society, and we do so in virtue of the uniformities which govern organised as well as unorganised beings. The inrooted belief in the spread of uniformity over intelligence, even when it is emphatically denied in words, is amusingly shewn by the way in which each god in every pantheon has his own individual character in addition to that uniformity which makes him a divinity, and even in personal forms of monotheism, (where the supposed external intelligence is merely a magnified man,) a persistent character is invariably assumed, expressed by such terms as justice, mercy, providence, and love.

To have a firm foundation for any thought, feeling, or action it must be founded on uniformity. We must expect that similar circumstances will be followed by similar circumstances or we are simply bewildered. We can found nothing upon simple speculation. Our first business is to discover and verify uniformities, then to deduce results, then for unincluded cases to search for analogies on which to found empirical speculations as they are termed, which cannot be verified beyond certain limits, or wider speculations still, which we are continually trying to verify. In the great and complex field of human society most of our

best results are empirical, that is, verified only within certain limits, and liable to mislead when those limits are exceeded. Till within a very few years indeed the empiricism was extreme, for we had not hit upon the historical and statistical methods of research, and the best heads guessed upon the limited information of personal and traditional experience within a narrow area. The republic of Plato and the politics of Aristotle are instances of what is meant. The historical method suggested and worked out in pattern by Auguste Comte, was the first great step towards a science of society, which we can only hope that the greater command of materials and wider range of study which mark the labours of Herbert Spencer, will enable him greatly to advance. Within limited domains, juridical and economic science, based on the gradual development of communal habit and the statistical investigation of commercial relations, have already accomplished much. But all that has been accomplished, absolutely all, has been built on the one foundation of the uniformity of nature, organic as well as inorganic, social as well as individual.

You will no doubt perceive that we are here led into a kind of fog. The speculative religionist mocks, and bids you regard his sun: "This do and thou shalt live." All very well, but what do you mean by living? What authority have you for inferring that whatever you mean by living shall follow from our acting as you

propose? and what principle, beyond this attainment of an unexplained, and perhaps inexplicable life, underlies the precepts you give? The speculative sun begins to look like a phosphorescent marsh damp. Better to face our fog, which is not impenetrable, and which leaves a very fair circle of vision, for although the horizon disappears at any place, the circle widens as we move. In fact, what the matter resolves itself into, is something to which we are well accustomed in every kind of research, a limited area of knowledge; and it is only the extremely complicated nature of the subject and the very short time during which it has been studied as knowledge and not as wild speculation, that makes us worse off in the science of society than in the science of geometry. We soon reach limits even in the last, the simplest and longest cultivated and best known of all sciences. But are we to give it up for that, and trust henceforth to a light of nature, beaming from some speculator's eye? Forbid it Euclid!

Duty is social. These three words contain the pith of all the rest I have to say. Duty is in fact the sum of the actions which a man feels it incumbent on him to perform in relation to other men. Hence it must be regulated by the uniformities of society so far as they are known to us at any time and place, but will vary with that knowledge. The end or object towards which such actions will tend, must also vary with our knowledge of the relations of society. In an

isolated family it will reduce to the preservation of that society ; in an isolated tribe to its own especial security ; in an isolated collection of tribes or a nation, to the prosperity of the collection. But, as we are now able to carry out the *conception*, though the *practice* has hitherto proved impossible and will not probably be feasible for ages yet to come, the ultimate aim and object of the action of each individual should be the well-being of the whole race. At present, in the most advanced communities, the family, the connections or various interests, the divisional governments and the separate nationalities determine the action of man towards man, although an enthusiast or a philospher may work and think for mankind at large. These considerations practically settle all questions of right and wrong, and upon such general views Professor Clifford lately (*Fortnightly Review*, Dec. 1875) endeavoured to establish a scientific conception of right and wrong. But into this branch of the subject I am unable to enter, for all the time at my command is wanted to consider the first simple deductions from the proposition that *duty is social.*

In the first place there is no room for the conception of man's duty towards God. Our relation towards the usual anthropomorphic deity was that of infinitely small to infinitely great, in matters of the same kind. The only approach to such a social relation is that of a slave to a despot, and that was

the position usually selected. Then arose the intermediate officials of saints and angels, bribed in a very earthly fashion through their priestly representatives. All this was simply shocking. The conception was greatly improved by a reversion to the old patriarchal form of government, which made God the father, and hence, according to Eastern habits, absolute ruler of man, but the improvement could only be obtained by a reduction of the higher infinity, and presents at best a loose analogy which soon breaks down when pursued into particulars. In the decalogue the two powers are distinctly separated. God is in the first commandment made a local deity, and in the second is distinguished from the Egyptian idol, which the child of Israel was forbidden to worship under penalties to children's children. The third and fourth commandments appoint a distinctive religious mystery (the name ineffable) and ordinance, (the Sabbath), and in the first edition (Ex. xx. 11,) grounds the latter on the legend of the creation, but in the second edition (Deut. v. 15,) rests it again on the purely national deliverance from Egypt. This mystery and ordinance must be regarded as the authoritative establishment of spiritual sway. It practically inculcated absolute submission to those who spoke in the name of Jehovah. Then comes the patriarchal clause, relating simply to the temporal power, as it would now be called, but the Israelitish ecclesiastical rule was as purely temporal

as the patriarchal, for no life after death was dreamed of. Hence the change of conception from ecclesiastical to patriarchal despotism belonged really to a time when a truly monarchical despotism had been established. The Church of England still calls upon its adherents to pray that these laws may be written in their hearts, but no one, priest or listener, pays the least attention of them out of church, nor indeed very much in church, where Jesus is addressed as God instead of Jehovah, where the nature and time of the Sabbath is entirely altered, and where the unspeakable name is constantly uttered. Each believer in an anthropomorphic God, endeavours to establish some relation between the deity and himself, but the favourite Christian view seems to be that man is a criminal whom God as judge has already condemned, but whom God as dispenser of mercy is to be persuaded to pardon, through the mystery of the atonement. Not a very edifying conception, into which I forbear to enter. The pure theist as distinguished from the Christian takes another view; but when one of the noblest and purest of theists, practically limits the infinity of God in order to reduce the relations between God and man to something intelligible to man, we may well cease to pursue the inquiry further. Towards the One Great Consensus of All Things, the God of Science, man's relations are determined by his being one of the uniformities of which God is the

consensus, and his sole duty reduces to the determination of the uniformities which govern his existence. And this brings us back from the empyreal to terrestrial air, and throws the discovery of duty on to the investigation of social relations.

Let us then take up the question as purely mundane, related to the ultramundane solely as the world is to the infinity of universes, visible and invisible. We must neglect the latter in all other social relations with the same equanimity that we neglect them in such a social relation (a very important one indeed,) as the construction of a railway, or the purchase of shares in the Suez Canal. Moreover to keep still more strictly to generalities, with which only it is possible to deal in view of the excessive number and complexity of particulars, let us consider the question independently of any particular society, and as if it could be extended to the whole race. After what has been previously said this cannot lead to any error.

The question of duty refers to each individual man (a word applying to both sexes,) in his relations to other men. Three distinct stages must be distinguished, which I will call Sustentation, Preparation and Co-operation.

Sustentation consists in keeping each individual in complete fitness for action. Paradoxical as it may sound, the first duty of any man towards his fellow men is to take care of himself. By this I do not mean

carrying out the ploughboy's ideal of swinging on a gate and eating fat bacon all day long, that is, animal indulgence, or even esthetic, or literary, or scientific indulgence. But I mean, keeping the whole system of muscle and nerve in a thoroughly healthy state by proper diet bodily and mental, and in a thoroughly active intelligent condition, knowing what to do, and how to do it, and ready to act at an instant on an emergency. Just as the general of an army labours to make his whole corps effective, by proper commissariat, proper discipline, and constant training, so must each man study to render himself effective, to remember that he is a unit in a mass, not an isolated being, and that if he does not take care of himself, he will not only be of no assistance to the general weal, but he will be a positive hindrance by laying the care of himself on others.

The duty of Sustentation exists from the time when growth is complete till the time when powers fail. The beginning and end of life is naturally parasitic. The means of Sustentation are generally an indirect process of Co-operation, which it would lead us too much into detail to consider. But till self-sustentation is possible, that is throughout childhood, the duty of preparing the growing member of society falls on others. The means of arranging this Preparation and the particular direction which it should take, form one of the most anxious questions of the present day, and the

best of us are not yet at one upon it. But the consideration that duty is social, leads at once to the conclusion that the end of education is to make good citizens, that is, good selfsustainers and good co-operators. By keeping this conception steadily in view many changes would be brought about in our present plans. In the first place denominationalism would cease, because it has no concern in the general good, but only in certain interests, which being founded on speculation and not on knowledge, can only be injurious to the general interests, against which it is often directly active. Thus the inculcation of such opinions as that the world will soon come to an end, that it is better not to marry, that we are strangers and pilgrims (1 Pet. ii., 11), that all our labour is for a heavenly crown, with a continual insistance on the natural incurable sinfulness of man, —all this, and the like, is hideous treason against society, all this, so far as it is accepted and conscientiously acted upon, withdraws hand and heart from co-operation, all this is blasphemy under the mask of religion. In the next place the conception of the social nature of duty, would lead to a positive reconstruction of education, on the basis of making it entirely subservient to the chief work of man, Sustentation and Co-operation. This would not remove from the curriculum all those esthetic elements which are essential for the future wellbeing of society. But it would give them a different direction, bending these

as well as the rest to the great aim of Preparation for Co-operation, healthy body, vigorous brain, clear thought, and knowledge of uniformities, especially social,—which, though forming the most advanced stage of human knowledge when viewed in all their relations to the subordinate uniformities of number, space, time, physics, and life, are yet from the fact that the youngest child lives in their midst, is constantly hearing of them, and constantly affected by them, singularly well adapted for teaching to children. That they can be taught to children my honoured namesake William Ellis has proved in a life spent in elementary schools, while in his numerous explanatory and model works*

* For the kind of instruction he aims at introducing, see his "Outlines of Social Economy, written especially with a view to inculcate upon the rising generation the three great duties of social life :—1st. To strive to be self-supporting, and not to be a burden upon society. 2nd. To avoid making engagements, explicit or implied, with persons now living or yet to be born, for the due performance of which there is no reasonable prospect. 3rd. To make such use of all superior advantages, whether of knowledge, skill, or wealth, as to promote to the utmost the general happiness of mankind." Third edition, foolscap 8vo., price 1s. 6d., half-bound. And for the reasons which influence him, see especially his "Philo-Socrates, a series of Papers, wherein subjects are investigated which, there is reason to believe, would have interested Socrates, and in a manner that he would not disapprove, were he among us now, gifted with the knowledge, and familiar with the habits and doings, of our times." In parts, price, 1s. each. "Part I. Among the Boys. On Conduct, on Industry, on Intel-

he has shewn how others may tread in his steps. May they be many!

But Preparation does not cease with school and with the guidance of others. The conscious member of society who rises to the full conception of the dignity of his position, is always preparing himself for further and better action, while relieving others by sustaining himself, and labouring with others for the general weal. It is in this Co-operation that all Preparation and Sustentation centres, and it has two sides. The negative only is shewn in the second table of the Mosaic Decalogue. Not what we *have* to do, but what we have *not* to do is there inculcated, and the whole origin of this table has become evident since the negative con-

---

ligence, on Economy, on Honesty, on Character.—Part II. Among the Boys. On Labour-selling, on Labour-buying, on Interchange, on Weights and Measures, on Money, on Price. —Part III. Among the Teachers. On Good Christians, on Professing Christians, on Some Essentials of Christianity, on the Old Testament as a School-Book, on the New Testament as a School-Book, on the Bible in relation to Adults.—Part IV. Among the Teachers. On Truthfulness, on Religious Education, on Tolerance and Intolerance, on Belief, Misbelief, Disbelief and Unbelief, on Theologico-Intelligence, on Theologico-Morality.— Part V. Among the Boys. On Hiring and Letting, on Borrowing and Lending, on Banking, on Paper-Money, on Taxation as a Means of Procuring Protection and other Advantages of Good Government, on Taxation as a Means of Procuring other advantages besides those of Good Government; and on some Substi-

fession of the Egyptian soul has been decyphered from the "Funereal Ritual," as read this morning. The Israelites are told in this second table of the Mosaic law, (copies of which are in England required to be suspended in every "established" church,) not to murder, not to commit adultery, not to steal, not to bear false witness against a fellow-Israelite, and not to covet the house, wife, servants, cattle or goods of a fellow-Israelite. That is, if we apply local ordinances to general purposes, every male (for the females are evidently not considered) is told not to destroy life maliciously, not to interfere with the legitimacy of offspring, not to appropriate the labour of others, not to injure a fellow-countryman by lying, and not to cast the evil eye of

---

tutes for Taxation.—Part VI. Among the Boys. On Expenditure, on Combined Action, on Individual Action, on Certainties and Probabilities, on Government, on Self-Discipline.—Part VII. Among the Hindoos. On Missionaries, on Law, Morals and Religion, on Pleasures and Pains, on Good and Evil, on Right and Wrong, on the Past, the Present, and the Future.—Part VIII. Among the Hindoos. On the Supernatural, on the Reasoning Faculties, on Posthumous Rewards and Punishments, on Duty and Conscience, on Public Spirit, on the Desirable and the Practicable." The contents of this remarkable work have been cited at length to show how important they are to all who have heard or read my three discourses, as a detailed supplement furnished by a well practised and fully trustworthy hand, head and heart. These eight parts may also be obtained bound in four volumes in cloth. The publishers of all William Ellis's works are Smith, Elder & Co.

desire upon his goods and chattels, among which his wife is, to modern minds curiously, but to Eastern minds which had but a unisexual conception of society, most naturally inserted. This last commandment is obsolete where the injury done by the evil eye of desire is no longer acknowledged. Equally obsolete should be the limitation to a fellow countryman, or "neighbour," as it is termed in the Authorised Version, meaning a fellow-Israelite in the eyes of the Jews themselves, as we may learn from the new definition which Jesus had to give of a "neighbour," in his parable of the good Samaritan (Luke x). But this limitation is, unfortunately far from obsolete to either Jew or Christian. The schoolboy who grows up with the conviction that he must speak truth to his fellow boy, but may tell what lies he likes to the master, and the German student who calls the townspeople "Philistines" are every day instances of the meaning and effect of this limitation, and shew the absurdity of simple negation unfounded on principle. The real intention and effect of the first three commandments of the second table was to secure life, property and legitimacy of offspring. There was not the slightest feeling for the woman in the injunction against adultery. It was issued solely in the interests of the man, the future inheritor and patriarch whom the presumed father must know to he his real son. How utterly impossible it would be to found a code of duty on these

selfish, tribal negations, must be patent to every one. The real negative side of Co-operation consists in doing nothing which interferes with the co-operative action of others. The enumeration of the acts which are thus prohibited belongs, for the greater part, to our codes of law, among which the decalogue goes for very little. How indequate it was even to Jewish wants may be seen in the very curious collection of additional regulations detailed in the twelfth to the twenty-fifth chapters of Deuteronomy.

But there is a positive side to Co-operation and although it was entirely neglected in the decalogue, it is the most important. It consists in the voluntary conscious participation of each intelligent separate element of society in preparing, maintaining and increasing the general wellbeing, material, intellectual, and emotional. Wherein consists wellbeing, in each of these departments, and how it can be prepared, maintained and increased are questions belonging to the science of society, secrets as yet in great part, though in yet greater part perhaps, certainly to an extent sufficient to keep every mind and heart awake and active, the property of all who choose to inquire. The great test which we as yet know for wellbeing and betterbeing is survival with increasing power of life. Stagnation even of wellbeing is practical retrogression. It is the hesitation of the thrown-up ball before descending. But continual higher life is like the

swelling river which eddies ever onward till its widening stream is absorbed in the ocean of which it supplies the waste, as the various societies in their perpetual growth tend to be absorbed in the ever replenished, every vigorous race.

And what do these duties imply? Every thought, every action, every feeling to which we spontaneously give the name of virtue, nobility, honour! All that is good and great, all that is gentle and pure, all that is loving and tending, all that makes man man!

And all this is founded on truth, not speculation; on investigation, not imagination; on observance of uniformities, not on truckling to caprice. Who will dare to call science dry when it leads to these results? Who will dare to call that a cold-hearted religion, which, accepting the God of Science, the Great Consensus of All Uniformities, works out the uniformities affecting man, to the exercise of every high and tender and noble feeling? Is that a warmhearted religion which looks upon all around as condemned to everlasting misery whence only they can be *perhaps* saved by prayer and supplications, by building fanes and feeing priests? Or is that only a warmhearted religion which withdraws a man's mind from his fellow-man and leads him to confine his thoughts to a God that man has imagined, living in a heaven man has fabled, and exercising powers of which man is the sole inventor? Does not such religion at best tend to

sentimentalism, that is, to excitement of emotions not realised in acts? It is only and solely when the heart of man leads him astray from the narrow paths of his religion of selfishness, into an endeavour to bring his fellow-men into the same heaven of bliss as he hopes to reach himself, that ordinary religion ceases to be hurtful to humanity. But a religion, fearing no dreams, trembling at no conjuration of the brain, but founded on science, that is, on what we know best, on what so far as known has never failed us, a religion which leads us to make the welfare of all a constituent part of the welfare of one, and the welfare of each one essential to the welfare of all, which exercises every emotion on a reality, which dreads no contradiction from investigation, which delights in every new power of increasing the general weal as science lays it bare, which makes man and woman the joint primordial cell of the whole social system, one and indivisible, developing into the family as its first fruits, and bearing with it all that we know of the best of earth's affections,—this indeed may, I think, rightly be termed a warmhearted religion. And this is what I mean by saying that *Duty is Social.*

We live in a time of change. The old faiths are everywhere making the most vigorous efforts by their defenders to assert or re-assert their position in the minds of men. But in the last three hundred years a light has peered above the horizon which has been

constantly growing brighter and brighter, till the old faiths, unable to wall it out, try to bend it to their own service by dispersing and distorting it in their own prisms. But science has never paled. Dogmas have yielded to it. Scripture has been manipulated into apparent agreement with it. It was only the other day that the Pope in his Syllabus, launched, for he found it still necessary to launch, an anathema upon its conclusions. Science shakes off the futile bonds like another Samson, "as a thread of tow is broken when it toucheth the fire." (Judges, xvi. 9). Men of science proceed just as if no pope or priest trod the earth. They are men of no consideration. Their hand bears no crosier, their brow is pressed by no tiara, but they hold a key mightier far than St. Peter's. They sit in their laboratory, they think in their study of what their experiments portend, and, lo! a quiet book appears, and a new point of view, a new principle, a newly discovered uniformity, changes the whole aspect of life. The man of science is working with the ever real, the ever new. The priest is pondering over the irretrievably old. He is patching up the many-coloured garment made to adorn the youthful Joseph (Gen. xxxvii. 3,) and endeavouring to suit it to the exigencies of the new Pharaoh that has arisen, who knows not Joseph (Ex. i., 8.) Whenever the man of science has succeeded, with marvellous patience and ingenuity, in tracing some thread through the compli-

cated web of the universe, the priest immediately discovers it also in the tattered but sanctified robe which he cherishes, and asserts that it lay concealed heretofore solely on account of the strange cut and fashion which the maker of the garment adopted to make it wearable at the time he shaped it, or from some discolorations designed to prevent it from becoming prematurely known. Science is discovery, Denominationalism is interpretation. But a few centuries ago the Bible was held to contain all knowledge. Beaten first from astronomy, and then from cosmogony and general physics, its upholders take refuge in morality, and, characteristically familiar with the purposes of a divine ruler, declare that "Holy Scripture" was never "meant" to convey any other knowledge but what would make men "wise unto Salvation" (2 Tim. iii., 15), couched in the language and forms of knowledge prevalent at the time of writing, in order to be "understanded of the people" (Article xxiv.,) though these protestant theorisers do not undertake to supply the inspiration necessary for separating such presumable wheat from the acknowledged chaff. Science is now invading even this domain. While priests are disputing with each other about robes and tables, about genuflexions and northern or other positions of the celebrant, about rituals for dissenters *in* the church and burial services for dissenters *out* of the church, whether one sect

alone is entitled to call its priests "reverend," and whether disbelief in the personality of the devil and in eternal damnation determines a parishioner to be "an open and notorious evil liver,"—all of which questions have been quite recently or are at this moment unworthily wasting the time of our courts of justice, and some of which are indeed unmistakably threatening to engross the attention of our legislature,—while denominational priests are thus wrangling, Science is simply turning her back upon them all, and painfully but conscientiously endeavouring to discover the uniformities of sociology, to lay bare the rational basis of right and wrong, and to open out the path which leads to Duty, by the same pioneering axe which has already done such good service in the thicket of physical research. The end cannot be doubtful. Duty as unveiled by Truth, will supersede the chameleon of Speculation, and Mind and Heart, no longer divorced, no longer trained on the irreconcilable principles of Inspection and Mystery, will alike rejoice in the same quickening light of Knowledge.

HYMN 235.

Words by A. J. ELLIS. *Music, old German,* HERRLEIN.

"Whence and whither, Wanderer, say,
Perched on yonder giddy height?"
Whence? from out the realms of night!
Whither? toward the realms of day.

None has learned, and none can tell,
How Life burst upon our ball,
Whence, diffused to each through all,
Thought upon the Wanderer fell.

None has learned, and none can tell,
When Death flits from each to all,
And Life fails upon our ball,
Where, or whether, it shall dwell.

This the darkness I have past,
Darkness haunted still with dreams,
Dread surmises, doubting screams,
Souls staked madly on a cast.

Light at length! I see it gleam!
Groping is the curse of men,
Duty lies within your ken,
Rest on God, and fear no dream!

DISMISSAL.

Before we part to day, I wish to mention that the three discourses which have just been brought to a close, were intended to furnish a partial explanation of some hymns which I have contributed to your collection, and which have therefore been in great part sung or recited on these three Sundays, and more especially No. 235, of which the sound has scarcely died away. In that hymn I represented humanity in the guise of a wanderer, perched on a "giddy height," which he had reached in flying from the realms of darkness to the light of day. This is the attitude of the most thoughtful among us at the present moment. Then, after alluding to the various speculations which had perplexed mankind in its historical development during its ages of tentative solutions of the insoluble, I supposed this personification of humanity from the vantage ground he had reached, to see the "gleam" of light which science had begun to spread over the horizon, soon to brighten into glorious day,—that vision of Truth of which I sought to give you some conception in my first discourse. Cheered with this beacon, the wanderer denounces that "groping" in the dark, which forms the fittest image of the groundless Speculation through which he has passed, (partly illustrated in my second discourse,)

and passes at once to what the gleam of light had enabled him to recognise, that "Duty" lies within his mental grasp, and that we therefore need fear no imaginary evils which Speculation has conjured up, but have simply "to do our duty, tide what may," (Hymn 393,) and to "rest" on the rock of ages, the One Consensus of All Things, Visible and Invisible, the One God of Science, "the unchanging code" in whose "hand" we lie both "above and 'neath the sod," in life or in death, "whatsoe'er our thoughts may fashion" (Hymn 266), and who, mirrored in the uniformity of nature, is at once the sole ruler of all our thoughts, our feelings and our acts, and the hope and faith of humanity, towards whom, therefore, our attitude should be that conscious communion which replaces the old medium of prayer, or, as I have expressed it, in a Hymn which has not yet been sung (No. 406),

> "What is Prayer—for us? Attraction
> Of our inmost heart to God,
> Love, Hope, Resolution, Action,
> Life in heaven this side the sod."

Finally, as one, who has been young but is now old (Ps. xxxvii. 25), and has passed through much mental conflict in the last forty years, I would ask you to bear in mind the concluding lines of the Hymn last sung, as the expression of my own profound conviction in which alone I can feel rest from all the

troubles and controversies of theology, and from all the doubts and despair which besets the intellectual and moral thinker who attempts to furnish solutions to problems, of which the wisest and the best among us have failed to do more than recognise some of the most elementary conditions :—

"Light at length ! I see it gleam !
Groping is the curse of men,
Duty lies within your ken,
Rest on God, and fear no dream !"

*** For two Hymns of the Author, illustrated in these discourses, but neither sung nor recited, see the next two pages.*

HYMN 406.

Words by A. J. ELLIS. *Not yet set to Music.*

What was Prayer? A slave's entreaty
Whimpered to the throne of grace,
Abject cries for mercy! pity!
Groaned to God's averted face.

What was Prayer? Intensest longing
Selfish ends on earth to gain,
Hands divine with bribery wronging,
Daring love with hate to stain.

What was Prayer? All laws contemning
That the world of worlds enthrall,
Rule divine like man's condemning,
Atoms raising o'er the All.

What was Prayer? A wounded spirit
Wailing wearily to God,
Urging, for another's merit,
Respite from a threatened rod.

What was Prayer? A cry of anguish
From a struggling sinking soul,
Doomed in dark despair to languish
For a god to make him whole.

What was Prayer? Enthusiasm,
By the fervour of its thought
Bridging o'er the frightful chasm
Heavenward from a world of naught.

What is Prayer—for us? Attraction
Of our inmost heart to God,
Love, Hope, Resolution, Action,
Life in heaven this side the sod.

HYMN 412.

Words by A. J. ELLIS. *Not yet set to Music.*

Behold the way to God! the Ascetic cries,
Fasting and prayer, a life of moans and sighs!
The world is dross, and all the wor'd contains!
Heaven's crown is won alone by earthly pains!

Behold the way to God! Religion cries,
Who dares to doubt for ever tortured lies!
Pray to the Lord, and he will give you faith,
By scorn of life to triumph over death.

Behold the way to God! Man's heart replies,
Hate is your hell, and love your paradise.
Leave dreams to dreamers! do the best you can!
The way to God is through the heart of Man!

South Place Chapel.

WORKS TO BE OBTAINED IN THE LIBRARY.

BY MONCURE D. CONWAY, M.A.

	PRICES. s.	d.
The Sacred Anthology: A Book of Ethnical Scriptures	10	0
The Earthward Pilgrimage	5	0
Republican Superstitions	2	6
David Frederick Strauss	0	3
Sterling and Maurice	0	2
Mazzini	0	1
Intellectual Suicide	0	2
The First Love Again	0	2

W. J. FOX.

Memorial Edition of his Works. 12 Vols. published at 60s.	30	0

BY ALEXANDER J. ELLIS.

Salvation	0	2
Truth	0	2
Speculation	0	2
Duty	0	2

BY W. C. COUPLAND, M.A.

The Conduct of Life	0	2

BY FRANCIS W. NEWMAN.

The Service at South Place Chapel, Sunday, May 20th, 1860	0	3

BY HENRY N. BARNETT.

Religious Enthusiasm	0	3
Hymns and Anthems	3	0

DATE DUE

GAYLORD

PRINTED IN U.S.A.

GTU Library
2400 Ridge Road
Berkeley, CA 94709
For renewals call (510) 649-2500

All items are subject to recall.